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ABSTRACT

Today's adolescent is isolated from the adult world and deprived of the secure framework of beliefs, morals, and conventions needed to guide socialization. In order to achieve the modern educational goal of preparing students for coping with the real world, the peculiar and particular nature of the earlier stages of adolescence must inform all discussions of the structure, curriculum, and educational context of secondary schooling. Unfortunately, the lower secondary stage of education, covering the years when the negative aspects of adolescence are at their greatest, has largely ignored children's needs in order to follow an elitist tradition of concentration on academic disciplines and skills. Opportunities for contact with adults other than authoritarian teachers are few, and little effort has been made to open schools to the community. Three facets of lower secondary education need to be looked at in the context of the nature of the adolescent pupils to be served. These are the aims and objectives of education, the implications for the curriculum and context needed to achieve such aims, and the means needed to implement the necessary changes. Specific implications of the analysis of the nature of adolescent pupils on educational policy conclude the document. (Author/PGD)

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INNOVATIVE PRACTICES IN SECONDARY EDUCATION

THE LOWER SECONDARY STAGE: PROBLEMS AND POSSIBILITIES

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by

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1978

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INTRODUCTION AND DEFINITIONS

Given the variety of organisations between educational systems, titles for international publications inevitably mislead. In this report the 'lower secondary' school or stage is taken as that generally embracing pupils between the age of eleven and sixteen, with a particular emphasis on the adolescent period which begins approximately at twelve or thirteen. Often the term 'school' is used, but clearly this applies also to the same stage within an institution which covers a wider age range, e.g. eleven to eighteen or seven to sixteen. It also considers the two essential interfaces with the primary sector on the one hand and with the subsequent secondary stage or with employment on the other.

The intention of this report is to analyse the general situation in order to show the main trends in reform now in process or being planned and to identify the main problems occurring in their implementation and possible ways of solving these; it is not to make a comparative study nor to prescribe action. Covering as it does the whole period of lower secondary education in all its aspects, it can only hope to diagnose generally the situation as it is: further detailed work will be necessary on the problem areas so identified. It is essential to see the problems of this period of education against the broader background of change and tradition in society and education in general; however, the need for brevity makes such a survey comparatively general. Thus the first third of the report concerns the general background while the remainder deals with the problems encountered and with possible reforms.

The sources of this report are fourfold. Firstly it derives from general reading, from conversations with those in research and in practice, and the personal experience of the author which has largely been in schools themselves but has included both administration and research. The second source has been a set of most informative position or background papers supplied by several countries, namely United Kingdom, Norway, Sweden, United States, Denmark, Ireland, Canada, New Zealand, Australia, Portugal, Japan and Belgium. A heartening aspect of these was a lack of complacency concerning what has been achieved so far. The third derives from the deliberations at, and reports from the CERI international workshop held in Bristol in July 1976, the fourth from the discussions held in the CERI Governing Board on the first draft and with many individuals.

The focus of this report is on the adolescent pupils themselves learning - or not - in the schools. Whatever the national system, the basic nature of the pupils is common to all; perhaps the main justification for an international study. However, an international report necessarily generalizes; it cannot apply to all specific national contexts. It would be wearisome, for author and reader alike, continually to make statements such as "of course certain countries have already advanced further than this" or "this only applies to those countries who are economically (or politically, or socially) of this or that type". Readers thus have to apply the report in the light of their own particular national conditions.

Finally certain terms or phrases will be used in the text that may be interpreted in differing ways. The meanings intended by the author are these:

Curriculum:	all planned learning situations organised by the school whether in or outside its bounds. It thus embraces content, methods, and social relationships;
Context:	the physical environment and human organisation within which the curriculum operates;
'Lower Secondary':	the period approximately between 11 or 12 to 15 or 16 years of age;
Upper Secondary:	all full-time or part-time education within institutions subsequent to 'Lower Secondary';
'Significant Differentiation':	is a differentiation in curriculum that will offset the subsequent 'academic' or 'career' opportunities for pupils;
Lockstep methods:	the system of class teaching by which all pupils in a class are expected to advance at the same rate/time covering the same syllabus in the same time.

I

THE GENERAL BACKGROUND

A. THE CONTINUING IMPORTANCE OF BASIC SCHOOLING

Exaggerated expectations bring inevitable disillusionment. Education, during the past three decades, was expected firstly to power economic growth and then to right inequalities between social classes; neither of these has it achieved. Scepticism grows about the direct relationship between education and economic progress; doubts are voiced as to the role of schools in social engineering. Disenchantment is widespread, expressed in its most extreme form as a demand to abolish the school as a social institution, in its most mundane as a demand for accountability 'value for money spent'.

Few would deny the desirability of 'greater equality' or of 'economic progress'; but recently many have come to deny that these should be the major purposes of education. Partly as a swing away from the materialism of recent years and partly from the emphasis on social goals, the pressure has grown to make individuals and their full personal development the central aim of education: though as yet this is ill-defined, it is the growth of the whole person - their affective, cognitive, and physical capacities - that has become the goal. This embraces the role of individuals in the political, economic and social life of the community and the importance of their understanding, and taking part in the transformations of the culture surrounding them.

However, deriving from recent economic problems, more emphasis is also being put on the preparation of the individual for working life - a goal not at all incompatible with 'full personal development'.

The steps towards the achievement of these newly defined goals during the years of 'lower secondary' education form the major theme of this report, without neglecting the subsidiary but important objectives of helping to correct social inequalities and of contributing to continuing economic progress. The achievement of these goals will involve actions by other agencies, particularly the social services; for some purposes, co-operation with these will be an essential ingredient of success. However, the school remains the only institution that exists that can take central and immediate action.

In the long term perhaps we shall transform society into a 'complete learning environment'; meanwhile we have children, we have schools - and not much else. The need is not to abolish schools but to reform

them, to make them more apt to fulfil their real tasks - not to select and educate an elite, not to stuff unwilling heads with unnecessary information but to give every pupil at least some hope of self-fulfilment and a satisfactory life.

It is in the lower secondary stage of education that most change has occurred in the past years. And, because of its failure to achieve unrealistic goals, it is here that there is the greatest disenchantment. Now, when administrators face the challenge of new purposes, can schools achieve them? For the experience of the past years has shown that changing social institutions is slower than changing industrial technologies. Teachers, even more than most, are reluctant to change, to abandon security for uncertainty. Yet change does occur; but the timespan is long. The outward show of society appears to change every decade: but a generation is required to make a fundamental change in education. Nevertheless however long the change may take, it has to be initiated, and to a greater or lesser degree, planned and directed.

The relative efficacy of more or less spontaneous local 'participatory' efforts as against those centrally directed or inspired is uncertain; it is improbable that the latter will ever cease to be an important, perhaps key, factor in change. Perhaps more important is the need both for long-term actions aimed at radical reform and for short-term steps to ameliorate the present difficulties.

At the stage of lower secondary education the problems of individual development becomes particularly pressing. This is one of the two key periods in the slow progress from childhood to maturity; the insecure, often turbulent, period between ceasing to be a child and becoming an adult. The implications of the particular needs of these 'adolescents' for educational practice form one of the main themes of this report. The first five years of life affect deeply the basic attributes of personality and influence strongly later cognitive and affective development. But at adolescence these basic attributes are developed into the mature personality. At the same time the capacity of abstract reasoning develops, with all that this implies for intellectual and moral growth.

In our civilisation adolescence is prolonged, particularly for the higher socio-economic classes; this both increases problems and offers possibilities.

For our troubled society, the problem of how to bring our children to maturity, to 'socialise' them, is pressing. Plurality of beliefs and consequent uncertainty as to moral codes, combined with the weakening of family and community responsibility, makes it hard for youth to know what behaviour is socially desirable: what 'models' are we to provide to guide them? The choice is difficult but not impossible. If we are uncertain what perfect 'right' behaviour is, we mostly continue to agree what is certainly 'wrong'. If the schools cannot find means of leading adolescents to this - admittedly a difficult task in the present school setting - who will?

During the stresses of adolescence, the family is often inadequate; the teen-age peer group, though sometimes highly idealistic, is too little in contact with realities; the influence of the community has declined; and the mass media more harmful than helpful.

The extreme importance of adolescence both for the development of individual capacities and for 'socialisation' into adult society has significance for the duration of compulsory schooling. If indeed schools are the main institutions that can hope to achieve at least some part of these major purposes, clearly adolescents should remain in them, not only through the disturbed years of early adolescence, but also into the calmer, more positive, later years. This does not imply that the world outside the schools should not be used to aid in the process of bringing the adolescents to maturity; indeed this is certainly an important trend in recent reforms. Nor does it imply that combinations of school and work cannot be of real value as a substitute for full-time education. Unfortunately the disillusionment discussed earlier has not only set some countries against all increase in the years of compulsory education but led some politicians and educationalists to consider the possibility of a decrease (e. g. in Germany, United Kingdom, United States). Some now look to 'recurrent education' as a solution to many of their problems (Sweden). Fertile a concept as it is, by definition it cannot help during the actual vital years of adolescence. Nor will it attract back to education those who left school with inadequate skills and a rooted dislike for everything to do with education.

The growth of youth unemployment - a long-term trend exaggerated by the recent economic crisis - has added a further dimension to the problem.

However, merely to incarcerate the adolescents in schools, such as they now are, will do little to help; it may well harm. For schools to achieve these new comprehensive goals the whole curriculum and the context in which it is learnt needs re-thinking.

The schools of the present, despite differing goals and a radically changed pupil body, are largely modelled on the elitist academic secondary schools of the past. Even in those countries most concerned to introduce the comprehensive principle, the bias is firmly academic, encouraged by the demands of the upper secondary stage and of the universities. Little has been done to mould the curriculum and its context to the needs of the individual pupils through their adolescent period; little has been done to prepare them to face the problems and realities of life, particular that of the working world.

Schools now are generally large, often offering a complex set of options between courses, subjects or levels within subjects; for pupils they are a transitional stage either to further full-time education or to work: thus important and significant choices have to be made. Both to ensure the personal knowledge of the individual pupils necessary to guide them in their learning and to counsel them in choosing both during and at the end of this school period, reforms are needed to set up effective

systems for personal care and to provide guidance and counselling services both within and beyond the school.

Such systems imply adequate methods of assessment, acceptable both to pupils and users; this assessment must reflect all abilities, and be valid both for the improvement of the individual pupils learning and for the making of significant choices. The more the curriculum is modified to fit individual needs and to achieve wide objectives, the greater will be the need for care and guidance on the one hand and comprehensive, acceptable assessment on the other.

Both the fitting of the curriculum to the pupil and the stressing of the development of affective attitudes and abilities leading to a mature personality imply a considerable increase in pupil autonomy; the choice of both matter to be learnt and the manner by which this should be done needs to become more the pupils' and less the schools' responsibility. This will be taking place within a total system where increasing autonomy is being given in many countries to the local area and to the school to make at least some decisions on curriculum and context. The extent to which the school will remain 'accountable' for the pupils' decisions and the central society for the schools' decisions pose problems not yet resolved.

To sum up, the central theme of this report is the fitting of the school to the needs of adolescent pupils, to enable as full a personal development as possible. It will be concerned with the problems of ensuring greater educational equality - whether of opportunity, outcomes, or benefits - and with the essential relationship of the schools with society generally and the world of work in particular. If the central figure is the adolescent pupil learning - or not - in the school, it is also the school itself, its internal organisation and its relationships with the educational stages before and after, and with the world outside.

B. PRESSURES FROM SOCIETY INFLUENCING EDUCATIONAL CHANGE

The changes that occur in society - economic, political, and social - determine the broad outlines of the changes that will occur in education; the detailed reforms are determined by those who take part in education itself: the administrators, the professionals, the researchers and the pupils themselves. The last quarter of a century has seen an unprecedented increase in the rate of change in society - in technologies, in communications, in customs and beliefs.

This has brought pressure for equivalent changes on the schools themselves; but though this has had some effect, the actual process and content of learning still resembles uncannily that of fifty years ago. The cries occasionally heard of 'too much change in schools' or

'back to the standards and methods of the past' do not reflect the mismatch that exists between the needs of the individuals who form our society of today and the practices of the schools themselves. The next sections look inevitably too briefly - at these pressures, the context of society in which they operate, and the effect they have on education.

1. The Influence of Economic Developments

Subsequent to the war of 1939-45, most countries were forced to undertake a massive task of economic reconstruction. In the late fifties this developed into an unprecedented economic expansion, resulting in substantial increases both in national wealth and in personal incomes. Throughout this period, lasting into the early seventies, the dominant interest in society in most countries was economic; this had its inevitable repercussion on education. Economic growth was considered to be causally linked to increased investment in education. Not only was there a need to upgrade the general standard of education but also to identify, select, and educate the most able to widen the 'pool of ability' available for the nation. A particular need for scientists caused schools in many countries, previously tied to a classical education stressing Latin and Greek, to emphasize instead sciences and mathematics, which increasingly, particularly the latter, have become the key academic disciplines. At lower levels of education the increasing need for technicians led to giving vocational technical courses a more academic bias - again stressing mathematics and basic sciences rather than practical skills. From these pressures came four major outcomes: the steady raising of the school-leaving age; the provision of 'secondary' rather than 'elementary' education for all; forms of organisation that enabled the able and motivated from all classes to be selected for 'academic' education; and a great increase of post-compulsory and higher education. This over-all expansion, accompanied as it was by a demographic increase in the number of children of school age to be educated, was possible to finance in a period of rapid economic growth - though only at the expense of other social investment. It entailed massive building programmes, the training of large numbers of teachers, and the development of curriculum for the new secondary schools. Thus an opportunity arose to re-think all aspects of education, particularly for the secondary period where the greatest expansion took place. Unfortunately, except for some interesting experimental work, the opportunity was not seized. Secondary schools for all continued to resemble watered down versions of the academic schools for the few.

As a model such schools were disastrous. Limited to those social classes who could or would pay - with the exception of a small proportion of scholarship children - their aim had been to prepare pupils for higher education, for direct entry into certain professions, or simply to act as a mark of 'an educated person'. Catering much more for boys than girls, their bias was masculine - a trait that continued most inappropriately in mass secondary education. Their main objectives were the

acquisition of academic knowledge and the development of intellectual processes; with the exception in some countries of certain boarding schools, they were not concerned with affective development, which remained the province of the home. The parents had in common a belief in education and the necessary family authority to ensure that most of their children accepted what the school offered them - however inappropriate it might have been to their stage of development. The influence of these schools remains clearly marked in the secondary schools of today, not only in the 'academic', but also in the technical, schools or streams, where undue stress is often put to the 'academic' as against the 'practical' subjects. A particularly damaging heritage has been the lack of concern - and in fact disdain - for the world of work.

However, the halcyon days both of economic and educational expansion are past; the honeymoon is over. Considerable doubt is now voiced as to the causal connection between economic and educational progress, whether for society as a whole or for the individual. In these days of financial stringency money for educational reform is difficult to find and harder to justify. The need for reform persists; the money to finance it grows less.

The economic downturn has brought about the social evil of the return of large-scale unemployment, particularly for youth, where the proportionate increase has been greatest - a trend that was developing before the present crisis. This has brought renewed pressure to use schools as custodial institutions, looking after juveniles unwanted by the industrial world. Some ministries concerned with labour and employment are seriously suggesting a further increase in compulsory schooling - a negative reason for what, with changed schools, could be a positive development. Schools are exhorted to raise the standard of education of those who now are likely to find themselves unemployed, usually those from the lower 10% of school attainers, so that they can find skilled or semi-skilled work. Again, though a highly desirable reform, discussed at length later in the report, this will not provide the openings for work - and at present, with the exceptions of certain very specific and limited areas, industry appears to have an oversupply of most classes of workers, skilled or unskilled. Indeed the effect of raising the general level of attainment in schools can be partly to devalue the qualifications so obtained. In many countries the level of the paper, largely academic, qualifications demanded for a particular job increases steadily, which further disillusions many school leavers, finding their 'paper currency' devalued, with the education they have received.

Recently employers increasingly question the value and efficacy of the education that their potential employees have received, particularly those applying directly from the lower secondary school. Their criticism takes three forms: firstly, that necessary standards of literacy and numeracy are not attained, which, though resulting to some extent

from the past years' economic expansion with consequent dilution of ability in the work force, is an indication also of the failure of the schools, with at least the unmotivated section of their pupils. Secondly, the undue concentration on academic learning means that essential personal qualities such as 'the ability to co-operate with a group', 'ability to mix with others', 'ability to show initiative when faced with an unexpected problem' are neglected. Incidentally, this latter demand fits in with recent increased emphasis on the goal of 'full personal development'. Thirdly the academic emphasis of schools dissuades able pupils from entering high-level technical courses and from thinking in terms of concerns in industry and commerce.

2. The Influence of Egalitarian Social Pressures

Paralleling economic expansion in many countries has been the growth of 'egalitarian' thinking, whether actually resulting in the introduction of educational policies or at least in modifying the general climate of opinion in which decisions in education are made. 'Equality' as applied to education has been a concept whose definition varies both between countries and over time; three major definitions are given below.

'Equality of opportunity' has largely been interpreted firstly as the right of all children to a free education of roughly equivalent efficacy up to the end of the compulsory education period, with no social or economic discrimination in whatever significant choices of curriculum are offered within it. Though free, the incidental cost of books and equipment is often left to parents who may also face loss of family income from children's earnings while having to maintain them at home. Secondly, all those with sufficient school attainment have the right to continue with post-compulsory, and ultimately higher, education; however, the degree to which individual countries subsidize the post-compulsory stage varies considerably. This definition does not imply that action should be taken during compulsory schooling to give compensatory education to those who are disadvantaged in any way. Equality, defined in this way, has much the same educational outcomes as the economic, meritocratic pressures for identifying and selecting those most able to profit from an academic education, particularly when it becomes apparent that such selection, both from the point of view of efficiency and of social justice, should take place as late as possible. These two related pressures resulted in the first wave of comprehensive schools; the disillusionment caused by the discovery that in fact it was the higher socio-economic groups who took advantage of the 'opportunities' provided, that led to the re-definition below.

Equality of outcomes now replaces equality of opportunity as the goal of egalitarian policy in several countries, for example, in Scandinavian countries and part of the United Kingdom. This implies, not that all pupils should attain the same standards but that the composition of the pupil body in the more prestigious academic streams

or courses within the lower secondary school and more particularly in post-compulsory and higher education should roughly reflect the proportion of differing socio-economic classes in society. From this derives the tendency to maintain a 'common' curriculum as long as possible while providing compensatory education for those with lower attainment. At the same time the nature of the school and its relationships with parents is adjusted to take full account of the majority of pupils from the lower socio-economic groups. Those adopting this definition wish to use the school primarily as an agent for social engineering; the recent growth of emphasis on personal development has resulted in the final re-definition.

Equality of benefits implies that every individual has a right to a roughly equal benefit from education in the sense of meeting his or her particular needs and abilities. As it is the lower socio-economic groups that have benefited least in the past, it implies that an effort is required to right this imbalance, particularly in the primary and lower secondary stages - for some the only educational experience that they will have. From this, derive moves towards a flexible and differentiated curriculum and a re-distribution of expenditure and resources to benefit the disadvantaged. In curriculum terms it means the postponement of significant choices until after the lower secondary period, and the provision of a much wider range of educational experiences for all pupils, particularly those that are expressive and creative and those that involve wide interpersonal relationships.

Related tenuously to egalitarian philosophy, a more hard-headed realisation of the importance of education in the lower socio-economic groups has developed - the sense of the full development of individuals to take their part in society. In some countries (e.g. the United Kingdom, Australia), the power of trade unions has made them almost a 'second estate'. Many of the problems between management and unions take place on the shop floor; such conflicts bring face to face the two groups who are so differently treated in school. This is a strong case not only for better education for the lower socio-economic groups but also for an education that brings all groups into close contact at least during schooling; the lack of understanding lies on both sides.

3. Pressures from the Recent Emphasis on 'The Quality of Life'

Towards the end of the sixties a reaction against the materialism of the period of economic expansion and against the excessive central control of the state over the life of the individual led to a movement to consider the 'quality of the life of the individual' as the central goal of society. This concept developed among the new large class of higher-education undergraduate and post-graduate students who, being freed from direct economic necessity, had time to reflect on the nature of modern society. However, the rapidity with which their basic ideas have been accepted shows that these coincided with a felt desire

throughout society as a whole. The major outcomes were trends towards increasing the participation of the individuals in decisions that affect directly their daily life, a concern for the full development of each individual, and a desire to improve the physical environment. The stress on participation and on personal development have found their way into the stated aims of education in many countries and are generally changing the climate of opinion in which decisions are being made.

4. Pressures from the 'Feminist' Movement

During the last twenty years, a strong movement has developed demanding 'equality' for women, the interpretations being much as described in the "equality of opportunity, outcomes, and benefits" described in Section 2. The education of the past was geared to men's needs; the 'new' secondary schools inherited this tradition. The interpretations both of full personal development and of 'preparation for the working world' is perhaps different for men and women. Both equally need education to fit them for what is normally defined as 'work'; they both need education that will fit them to be parents; but within the family the difference in their role implies perhaps a differing emphasis in education. Though economic pressures have also been responsible, a secondary outcome has been the increase in the number of women working. This again has reduced both the adult contacts with and parental control over the adolescents.

5. The Effects of the General Context of Contemporary Society

If economic, political, and social pressures have shaped the major reforms in education, these have occurred within the context of a rapidly changing society in which family, interpersonal and work relationships are in a constant flux. The transformations of the last twenty-five years have come so fast that the fabric of society, normally slow to evolve, has been ruptured. In such conditions, the difficulties of planning educational change which needs time to implement are only matched by those of the adolescent pupils who must grow up in them. Within the restricted scope of this report, only major societal changes can be indicated and those briefly.

The adolescents of today suffer most from the replacement of the extended family with its wide range of possible adult contacts by the small 'nuclear' two-or-three-child family, often living geographically distant from the few remaining relatives. Particularly this intensifies the difficulties of the period of adolescent rebellion against parental control, when other adult 'models' are imperative; the control and influence of the parents within the family is thus weakened. The impoverishment of adult contacts has been increased by the absence of local community ties, brought about by the urbanisation and sub-urbanisation of life, the mobility of families, and the divorce of living

and working places. At work, too, human contacts are limited; units are large, impersonal, and work either on production lines or on highly specialised individual tasks. The marked increase in divorce and separation has increased considerably the number of one-parent families; this compounds adolescent problems.

Both schools and adolescents are faced by the breakdown of old moral certainties that guided behaviour. Pluralism of beliefs, uncertainty as to moral codes and a very general relaxation of conventional pressures towards conformism are now normal. Though a general consensus probably remains on the anti-social nature of at least certain behaviour, how to identify this clearly and to ensure its acceptance by adolescents in a prevailing climate of uncertainty is not clear. We know that such codes of conduct are more caught from personal contacts than taught by preachers or teachers, but who decides what is 'right', what wrong and how are the 'right' contacts made and the 'wrong' avoided?

The uncertainty of the moral codes of sexual behaviour, combined with the early arrival at maturity, particularly of girls, has posed a new set of problems for lower secondary schools. Though only affecting a comparatively small minority of pupils, pregnancy and venereal disease are problems in many lower secondary schools, in particular those serving 'disadvantaged' areas. This brings pressure both for effective sex education in the curriculum, and for close co-operation with other social services.

The disappearance of the extended family and the attenuation of community relationships have combined with the development of cheap and easily available second-hand experience through television, through films, and through professional sports, to produce a society that is more passive than active. We no longer create, or express; we sit and absorb. We do not play games, we watch them. We may watch good plays on T. V., be enlightened by information programmes, but we discuss these, if at all, in the limited circle of the family. This is stultifying for adolescents who need to try out their mastery of the adult world in actions and their new-found intellectual powers in discussion.

These major trends in the changing context of society have significance for the failure of some reforms attempted in schools but most of all they have significance for those yet to come.

6. Influences from Pedagogic and Social Science Research

The degree to which theories of, and research in, education have directly influenced practice in schools is debatable; certainly they are an essential factor in creating the climate of opinion in which decisions are made. Though broad policy decisions are rarely taken because of research finding, once made they may well be justified by reference to them. However, the interpretation of these broad policies into actions in the schools is more directly influenced. Within the space available

in this report, little more can be done than to recall those theories of learning and research findings that have been sufficiently widely disseminated to reach those who make decisions.

Four main theories, deriving largely from research directed by psychologists, have had their own particular influence. The concept of discrete stages of conceptual development occurring sequentially in children, based on the work of Piaget, has had perhaps the greatest direct affect, but mainly on pre-primary and primary education. Unfortunately Piaget's extension of the theory to adolescent development, particularly the relationship between the growth of the power of abstract reasoning and its relationship to moral development has not impinged equally on those who decide the curriculum in secondary education. The varying moves towards 'individualisation' starting with the step-by-step reinforced learning system - programmed learning - were based on Skinner's theories of conditioned learning. Further developments on these lines were based partly on the work of Gagné, with the analysis of subject matter into hierarchic sets of concepts and the definition of 'operational objectives' by which a learning sequence could be set up to achieve each conceptual stage. This has resulted in various individual systems of learning and has had some success in those subject areas organised hierarchically - mathematics and the sciences in particular.

Related work on the analysis of learning by the use of taxonomy of objectives by Blum has certainly influenced both curriculum development and the assessment of learning. His later work, resulting in the 'Mastery of Learning' theory, has also had significance particularly for those seeking greater equality. This posits that all children could learn all concepts, given suitable methods and variable time to learn them. This contrasts with the popular concept, used much in planning, that two groups of children exist; one capable of abstract reasoning and therefore suitable for academic education, and one only capable of reasoning in concrete terms to whom 'practical' education should be given. Competency-based testing is largely derived from this work.

Finally Bruner's concept of the three sequential ways of knowing - through actions, through imagery, and through representation - has perhaps had less direct effect than the related concept of the 'spiral' curriculum. This posits that the powerful concepts that form the main adult intellectual tools should be taught throughout the period of education but using at each stage of child development the appropriate ways of 'knowing'.

From research based on sociology as a discipline have come many findings that have been used in the arguments over equality and the effectiveness or not of education as a tool in achieving it. Out of many, perhaps the work of Coleman in showing that school attainment was influenced far more by social background than by any pedagogic factors has perhaps had the greatest influence. Also, results showing that, despite democratization of education, the proportion of lower

socio-economic pupils in the prestigious sectors of education has not increased, have been arrived at by research in many countries. Bernstein's work on the differing ways of thinking and consequent language used to express thought between socio-economic groups has directly influenced teaching methods.

Finally, the recent work of Jencks which purports to show that little relationship exists between educational attainment and earning capacity has reinforced those who doubt the economic value of education. No mention is made here of the conflicting results obtained by psychologists, concerning the relative importance in the part played by inheritance and by environment in apparent intelligence. Suffice it to say that the supporters and opponents of 'selection' in education can find results to quote that support them. In fact there is a growing acceptance that environment is undeniably a very important factor, and that, even if 'inherited intelligence' were to be unevenly distributed through social classes, all classes contain the full range of 'intelligence'; this being so, the arguments for greater equality, however defined, remain valid.

C. THE CENTRAL PROBLEM - THE ADOLESCENT PUPILS

1. Adolescence

We make decisions in education designed to promote economic growth, to diminish 'inequality', to enrich personal development; too rarely we consider the nature and needs of the pupils at their particular stage of development. Recently remarkable progress has been made in some countries in pre- and early-primary education to fit learning to the developing capacities of young children. But at the second key period in the development of the human being, adolescence, when the child emerges painfully into adulthood, we ignore the peculiar problems, pressing needs, and great potential for learning that it brings.

Psychologists and sociologists argue over the nature, duration, even the reality, of adolescence. Some see it as an artificial construct of our society that did not exist in other civilisations. Some see it as consisting of two stages, others eight. But two things are clear: firstly that the physiological development of puberty brings profound physical and related psychological changes; secondly that entering adult status is a vital step in all cultures. The fact that in those in which children start oppressive work before adolescence its manifestations are often suppressed does not deny their existence. It is, in our culture, perhaps artificially extended, particular in the higher socio-economic groups; this is a fact that must be reckoned with.

Three interrelated series of changes - physiological, psychological and sociological - combine in adolescence to confuse and to inhibit, but also to open up new emotional and intellectual possibilities

for growth. Though the process of becoming adult is generally the same in different social classes, the national and social class culture influences specifically when and how the sociological development to full responsibility occurs. This difference is most marked between upper and lower socio-economic classes and markedly affects attitudes to education and thus attainment. Above all, in one the normal age traditionally to become a 'worker' and hence in many ways to adopt adult responsibilities was at fifteen, in the other this was eighteen - or even later.

Though adolescence should be considered a continuous process from child to adult, embracing many different phases, a practical distinction should be made between the earlier and later stages: the earlier years, normally 12/13 to 14/15, are typified by physiological change, emotional disturbance, rebellion against authority, loss of identity and consequent insecurity. In later adolescence, an autonomous identity separate from the parents is established, capacity for abstract thought develops, personal and social relationships deepen, and idealism, often unrealistic, is rampant; adult responsibilities are imminent and the future career pressing. The age of onset is variable and the rate of development irregular; it is not possible to tie it rigidly to the march of the calendar. However for most, it will certainly arrive during the lower secondary years.

All readers have experienced first hand the problems of adolescence; many have seen their children struggle through it. Nevertheless, because of the vital importance expressed in this report of fitting education to the pupil, the major attributes of adolescent development will be outlined. The physiological impact of puberty is too easily forgotten because, though its outward show cannot be hidden, the secret feelings of half shame, half pride normally are. It is disturbing that a body that in the past has grown larger but not altered, suddenly should be metamorphosed. Girls particularly suffer from the beginning of menstruation - often physically painful and psychologically upsetting; a factor too often neglected in our male-dominated education system. With the physiological changes comes the power of the sexual drive, which particularly for boys can become obsessive. The real possibility of sexual intercourse proves a problem for a minority, particularly for girls. At the same time emotional relationships intensify both with peers and with adults other than parents. Often rapid physical growth in the early adolescent period occurs which causes excessive tiredness and lethargy.

The physiological progress to maturity, normally completed in early adolescence, is accompanied by a drive to leave behind the dependency of childhood. Only later this becomes a desire to be adult which continues through to the end of adolescence. The first effect of this 'rebelling' is the challenge to the authority of parents - and of other authority figures such as teachers whose role is similar. But the feeling of identity as part of the family that typifies childhood cannot

be immediately replaced by the sense of autonomous identity as an adult; hence the uncertainty of early adolescence and the real need for continuing security. This security, which in the past might have been found with the cousins and uncles of an extended family, is now found in the peer group who becomes the most influential factor in determining attitudes and behaviour. A major cause of the differing attitudes towards school between children of upper and lower socio-economic groups during these years is the differing nature and degree of influence of the peer group itself and the time spent in its company. In working class areas this group, which will normally include a proportion of older adolescents who have left school, is traditionally hostile or at the best indifferent to school; little time will be spent in the home, much in the streets and cafés with the 'group'. On the other hand middle class adolescents spend more time in their homes; their peer-group including older adolescents consists of those who at least tacitly accept that school, if an evil, is a necessary one. Boys particularly are influenced by peer-groups; girls perhaps more by the individual 'best friend'.

As adolescence develops, the need for adult 'models' grows. The absence of the opportunities for such contacts in modern society is serious; some at least of the less attractive features of 'teen-age' society, influenced by the none-too-scrupulous exploitation of teen-agers as a potential market, can be traced to this.

Along with the physiological and affective changes comes a cognitive development, noticeable particularly when the storms and sulks of the early years diminish. A rapid increase and delight in the capacity for abstract reasoning develops, to analyse, to synthesize, to erect hypotheses - and perhaps more gradually to test them. To what extent this is a physiological change in the brain or a learnt characteristic is not clear; what is sure is that it can be encouraged by activity and stultified by non-use. The age at which this development occurs varies; some researchers claim that many adults never reach it. More probably many are never brought to exercise this essential skill at least in relation to theoretical problems. A tendency exists among researchers to consider that abstract reasoning only happens when academic problems are tackled, whereas the same process may be used equally to solve a practical or interpersonal problem. The acquisition of what is perhaps this most powerful tool of all for learning makes later adolescence potentially a period for rapid intellectual growth only perhaps paralleled by that of the first five years of childhood.

2. The Implications of Adolescence for Education

The majority of pupils in lower secondary schools pass their earlier adolescence years there; many continue at least into the first years of later adolescence. In this section some of the implications of the earlier and later years of adolescence for education will be outlined.

i) The Early Years of Adolescence

In the early period adolescents, suffering from physiological and psychological disturbances, are essentially erratic in their pattern of behaviour. Periods of comparatively 'normal' behaviour during which they concentrate and attain well in school may alternate with those in which their private obsessions drive them to withdraw, to daydream, to act aggressively. Neither the onset nor the duration, nor the intensity of these disturbed spells, can be forecast. Some pupils pass the whole stage with little difficulty; others 'lose' two years in it. All teachers will know the difficult rebellious fourteen-year olds who, suddenly, in their fifteenth year become model pupils and achieve well. Of all periods this is the one during which actual school attainment forecasts least well future success: clearly no significant choices, whether by school, parent or pupil, should be permitted during these years. The wisdom of emphasizing hierarchic progressive subjects such as mathematics in which lack of concentration can leave vital gaps in a chain of linked concepts is doubtful. Doubt must also be cast on all 'lock-step' methods of learning in which a group of pupils are expected to advance through knowledge in orderly ranks. If such learning is necessary, 'individualisation' in some form seems the only possible solution.

In these years adolescents need help to release their pent-up feelings and to express in some form the tensions, aggressions, and confusions they feel. For this, expressive and creative work is important - whether physical, practical or 'aesthetic'. Drama particularly helps to play out problems that cannot be expressed directly.

The rebellion against the dependency of childhood which shows itself in aggression towards parents and teachers and in unthinking disregard of the roles they impose, is hard to control. The school needs to impose as few rules as possible while creating a sense of security by insisting on these being obeyed, to give some responsibility to pupils for their own behaviour - without expecting too much success - and above all to humanize the relationships between teacher and pupil. This latter is perhaps the key to progress: the teachers need to feel and be seen in their relationships with pupils as both giving the necessary authority for security and as possible models for adult behaviour.

The importance of the peer group at this age gives schools a chance, not at present much taken, to develop group activities within the curriculum, substituting purposeful action by the group for what is at the moment their major in-school activity - congregating in lavatories or in the playground to smoke and exchange 'smutty' stories. The present organisation of schools into strict age cohorts makes difficult what is another necessity for a positive peer group - that it should contain a proportion of older adolescents who to some extent have established their identities, are beginning to adopt more adult behaviour patterns, and who are not hostile to school. It is not uncommon for an emotional - and sometimes physical - pattern of homosexuality to manifest itself

during these years, both for boys and girls; this is not normally a sign of abnormality.

Many of the implications suggested above are significant for differing attainment between social classes. Failures and checks in learning due to disturbance are often overcome by middle-class parents who intervene to help and certainly exert pressure to ensure that such checks are temporary. However, over-pressure and anxiety by parents sometimes lead to serious problems with pupils who find difficulty in achieving a sufficient academic standard. The working class pupils often have not the same parental support and above all are more influenced by the peer group antagonistic to the school. When faced by a failure in attainment, there is a strong inducement to drop out of the whole learning process and adopt the norms of their group.

ii) The Later Years of Adolescence

By fifteen much of the disturbance of early adolescence has markedly diminished, sexuality and emotional development have to some extent been assimilated, and blind rebellion from childhood replaced by a more critical appraisal of adult behaviour. Whereas the implications for education of earlier adolescence are largely negative, the later period is one of great potential for learning.

In particular this is the age in which not only does the capacity for abstract reasoning develop but also the delight in using it. With growing release from the excessive egocentricity of the earlier stage comes curiosity and interest in the whole field of interpersonal relations, in society and culture as a whole, and for some, in the nature of the physical universe. However, it is the exercise of the mind rather than knowledge itself that is desired. Schools tend to stifle this beneath a blanket of knowledge in which the main intellectual process is either memorisation or the operation of narrow problem-solving processes.

An attitude to learning which uses and develops this new-found intellectual tool can exist within the existing academic structure of subjects; it is perhaps better developed if the natural interest in the whole human condition is tapped by the interdisciplinary study of human problems. Nor need this new-found capacity be used only on 'academic' subject matter: it can be applied equally well to creative, expressive, and practical activities. This is also a period of 'sudden enlightenments' - when a sentence spoken casually by an adult can open up a whole new vista; for this to happen contacts are necessary, particularly those that are informal. By fifteen or sixteen many girls will have developed emotional - and sometimes sexual - relationships, usually with boys two or three years older; such relationships are often of great importance to them. Thus, discussion of emotional and sexual problems is of particular importance - as is the sympathetic handling of their problems.

In this period contacts with adults of all ages and background, though perhaps above all with young adults, are essential for the growth of the individual personality and the development of personal ethical codes. For late adolescents are still uncertain of their identity: they can be observed trying out various 'persona' to see if they fit. These are influenced by adult models and need to be practised in an adult context. It thus becomes particularly essential during this period that not only do teachers behave as normal human adults of equal status - though of greater experience - but that the human resources of the community should either be brought into the school or that the pupils should go out to use them.

Finally, if it is accepted that the period of early adolescence is inappropriate for making significant choices, the implication is that it is in these first years of the later stage that such 'choices' must take place. Whether this should be within the lower or upper secondary school is arguable.

3. Conclusions

The lower secondary period of education is above all concerned with the education of adolescents, embracing as it does the whole of the earlier years and for many the first years of the later stages. This poses particular problems and opens up particular [illegible]sibilities. Firstly the disturbances of the early years, their irregular onset, duration, and intensity, the variability between individuals, and the differing outcomes according to socio-economic class of parents have implications for schools. No choice or selection should be based on observation of attainment, attitudes or character over the earlier years; little emphasis should be put on subjects that depend on a sequential grasp of concepts; 'lock-step' methods of teaching are inappropriate; and creative, expressive and group activity should have an important place in the curriculum.

A second set of implications arises from the rebellion against authority and the consequent seeking of security in the peer group. These are firstly that the schools should make as few rules as possible, insist on these being obeyed, give limited responsibility to pupils for their own actions, and transform the teacher-pupil relationship more towards that of a more experienced to a less-experienced 'adult'. Secondly that the reliance on peer group support, should be channelled positively by the development of purposeful group activities within the school.

In later adolescence, the new-found intellectual capacity for abstract reasoning should be utilised by devising a curriculum that encourages speculative as well as analytical intellectual processes, that can be exercised particularly on 'human' problems, and in which the memorisation of factual knowledge and set problem-solving processes kept to a minimum. At this stage the necessity for personality development

and intellectual stimulus, implies more informal 'equal' teacher-pupil relations and communities in which the schools are set.

D. THE CONTEXT OF LEARNING - THE SCHOOL, THE TEACHERS, THE BUILDINGS, THE SUPPORTING SERVICES

Previous sections in this report have attempted first to show the pressures exercised on education by society and then to examine the implications of the particular adolescent stage of development of the majority of pupils in the lower secondary school. This section will sketch briefly the context of the school itself and the supporting administrative and pedagogic structures as they have developed over the past quarter century.

1. The External Administrative Context of the School

The greatest divergence between countries exists in the degree of central, local, or school control over education. Yet to some extent this difference is diminishing; it has always been less in practice than in theory. In 'decentralised' countries a combination of tradition and external examinations have controlled schools almost as effectively as central administrations. The present trend in 'centralised' countries, for example in Sweden generally and in France with the 'ten per cent', is to give limited autonomy to local areas and to schools themselves to determine at least parts of the curriculum and the context within the school, rigid obedience to regulations being replaced by limited freedom of action within guidelines laid down centrally. In decentralised countries recent years have seen both a loosening of the bonds of examinations and a lessening of the power of tradition. However, more recently the demands for 'value for money spent' and the disenchantment with education generally have resulted in pressures for greater control-accountability'. To some extent both this latter demand and the delegation of autonomy are resulting in greater participation of the parents or the community in the control of the school.

2. The Internal Organisation of the School

Schools have always been, and largely remain, essentially authoritarian establishments; the degree to which this authority was exercised by the head teacher or by external inspectors has varied between countries. Recently some countries (e. g. the Scandinavian countries, France, Belgium, Italy) have introduced more democratic principles of government which include pupil, parent, and teacher representation. Nevertheless, for pupils the school continues to impose rules and to enforce obedience by a system of discipline, operated largely by the teachers. Appeals against unjust punishment have always been difficult to make

and harder still to substantiate. In many schools two standards of politeness obtain: the pupil must always show respect to the teacher but the teacher does not necessarily reciprocate - a condition particularly damaging for the emerging sense of maturity of the adolescent. The difference in socio-economic class that often exists between teachers and pupils aggravates the situation; the conventions of language and politeness of the middle class predominate.

The 'new' secondary schools are often large - in order to effect economies of scale - often between 800-3000 pupils. Very often only three or four age cohorts are massed in the one school; thus a large number of early adolescents are gathered in one institution in which a relatively small number of more stable older adolescents are present. Not only does this make difficult the necessary individual care which above all the adolescent pupil needs, but also increases significantly the number of really disruptive pupils, not uncommon at this age, to be found in one school. Because of the very considerable discipline, problems have arisen in some schools often compounded by an internal organisation which groups such pupils in the same classes. But size also causes problems of communication, makes democratization of decisions difficult, and implies skills of organisational management and development that the head teachers and other senior staff rarely possess.

3. The Existing Curricula in Schools

Though in detail curricula vary considerably between countries, common tendencies exist - or common pre-suppositions on which the curriculum is based. The most prevalent is that the first two - or in some cases three - years are essentially years of observation and orientation. Therefore the majority of pupils should follow a common curriculum; but as the next stage is to divide pupils in one way or another - into more or less academic sheep and goats - this common curriculum is predominantly academic. Particular importance is given to the 'difficult' subjects, mathematics and foreign languages, partly because success in these is made the main criteria for selection for academic courses, partly because it is believed that the work at this stage is necessary for high standards later.

The major object of such a curriculum is the amassing of factual knowledge. Over the years the total quantity stuffed both into the curriculum and into pupils' heads has steadily increased. This has resulted in adding to the school day often up to three hours of homework which deprives many adolescents of the necessary opportunity to have a full and varied life. Apart from this, considerable doubt has been thrown on the efficacy of such work. A second consequence has been the belief that a reasonable percentage of this knowledge must be acquired each year. Failure to do so means the repetition of the whole year - even at times a second repetition. This again is particularly damaging at adolescence.

In many systems at least one group is judged so incapable of academic attainment that even from the beginning of the secondary school a special curriculum is devised for them. Ironically this, though depriving the pupils of opportunities to enter the academic rat-race, is often more appropriate for the early adolescent pupil than the diluted academic fare offered to the rest.

The major difference between countries lies not in the relative importance given to 'academic' subjects but in the age at which differentiation takes place between what is normally three broad possible courses: completely academic - the most prestigious; watered-down academic, with a technical, commercial or applied arts component - the next best; and non-academic, practically based - the least valued. In some cases, this choice is postponed beyond the lower secondary school, but even then a significant choice of subjects or levels that will later affect entry to these courses at the upper secondary level has to be made at least two years before the end of the first level. Often the differentiations made affect girls and boys differently: the former either through deliberate organisation, or through staff pressure in the school or perhaps through tradition being directed away from certain subjects and towards others.

4. The Use of 'Time' in the School

Traditions die hard: the timetable of the lower secondary school and the distribution of terms and holidays throughout the year resemble closely those of the schools of the past. Subjects are studied in periods, usually between forty and sixty minutes in length; these are spread out throughout the week so that in any one day pupils are expected to change punctually on a bell their mental responses and attitudes perhaps six to eight times a day. As a system this implies passive absorption and denies the importance of motivation and interest. It also implies a fragmentation of effort that no adults would tolerate in their working life. Often this system handicaps those subjects for which even an hour's span is inadequate - the arts and crafts, games, practical science work. In particular it makes the development of the activities which could form part of the curriculum concerning the working world extremely difficult.

The insistence of the academic teachers on the inviolability of their separate periods and the spread of these through the week makes it impossible for the needs of the teachers of the less 'important' subjects to be met.

Holidays and terms remain sacrosanct; normally these consist of an over-long summer vacation in which pupils forget much that they have learnt before, and two short vacations at Christmas and Easter. Many countries have considered making four terms and shorter, more evenly, spaced holidays, but little has been done.

5. The Teachers

The teachers who man the existing lower secondary schools were either trained for the original elitist schools or have since received training in establishments whose staff were steeped in the same tradition. They have been trained to impart knowledge by class teaching methods and to exercise authoritarian discipline. To the degree that the 'new' schools are watered-down versions of the old this might not have proved so serious - except for the problems of teaching inappropriate subject matter by inadequate methods to unmotivated pupils. Little wonder that teacher frustration has been so widespread.

Yet changes towards new content, new personal relationships that are implied by many of the more recent reforms are often resisted. This is probably accounted for by a natural human reluctance to abandon a security, however precarious, one knows for an uncertainty that one fears. Change often involves considerable extra work which is rarely adequately compensated. All countries report the difficulty of introducing fundamental reforms because of teacher opposition - overt or covert. But insufficent has been done so far to change the basis of initial training, to introduce effective in-service training, to compensate teachers for extra risk-taking and more work, to involve them in a participatory planning process at the grass roots level, and to provide them with the necessary administrative and professional support for their new tasks.

The composition of the teaching force in lower secondary schools poses two particular problems. In early adolescence each sex needs the help and seeks adult models for behaviour from their own sex. It is the most difficult age to educate boys and girls in the same group, not as some suppose, because the disturbance of sexual development, but because of radically differing interests between boys and girls and the preference they have for the company of their own sex. In many countries, the teaching force for this age group is preponderantly feminine - one of the few cases in which boys are at a disadvantage in our educational system.

A second difficulty arises because in many countries teachers with differing training, status, and often salary are employed on the same staff; this makes cohesiveness difficult. Also, because the hierarchy are normally recruited from (and the academic subjects taught by) those with higher academic status, the prestige of and emphasis on academic education is reinforced.

6. Non-Professional Staff in Schools

The traditional elitist secondary school, limited to the class teaching of academic subjects and small enough neither to need elaborate personal care nor complicated management systems, existed with very limited non-professional staff - normally a school secretary and a caretaker. The complexity of the internal organisation of the

new large secondary schools has made necessary a marked increase in non-teaching administrative and caretaking staff - a need which has often been inadequately met. At the same time the increasing importance of practical activities in the school - in sciences, in creative and applied arts and crafts - and the use of audiovisual media, has necessitated the provision of technical assistants.

Finally the provision of elaborate 'resources' and the growth of individualised instruction has caused a need to arise for documentalists on the one hand, and straightforward organisers of individualised materials on the other. In very few cases has the administration supplied sufficient staff to fill these needs, which continue to be carried out, often somewhat ineffectually, by teachers. Problems exist as to the recruitment of these 'para-professionals' and their training, payment and relationships with professional staff. However, for the adolescent they provide a fresh set of possibilities for adult contacts, particularly as many are young adults; well used they can be potentially of great value to the interpersonal life a school.

7. Support Services to the School

The increasing size and complexity of schools and the steady reform of the curriculum over the past twenty years has brought into prominence the need to support the teachers in the schools; particularly when autonomy has been given to decide on areas of curriculum within the school. Inspectors who in the past played largely a regulative role now are expected to combine this with advice and counsel - an awkward juxtaposition. In some cases separate personnel have been appointed to undertake the advisory role.

Various forms of central, regional and local institutions have been created to make curriculum materials or to aid teachers in so doing. Either separate from or combined with these, other organisations have developed to carry out in-service training of teachers - in some cases in the school itself. Attempts have been made to marry more closely educational research and practice, and to make results of the former available and meaningful to teachers. Various forms of 'governing' or 'guiding' bodies have been set up locally not only to take part in the control of the school but to help in mobilizing local resources.

Though such services are being given increasing importance in most countries they are still inadequate to support major reforms. One of the dangers of the current financial stringency is that such services are considered peripheral - and are the first cut; a step that in the long run may greatly inhibit reform.

8. School Buildings and Accommodation

One of the gross errors of the massive expansion of school building during the 'fifties and 'sixties was that, with some shining exceptions, little was done to create flexible buildings that could be adapted to

changing methods of learning. The traditional egg-box consisting of identical classrooms with solid walls each designed to take thirty odd children, was the rule; with this, to a greater or lesser degree, went a number of specialized rooms, again often immutable. Even when schools were designed to meet a particular new approach to education - as for instance 'team teaching' - the buildings so constructed were equally inflexible. In some of these schools, massive, tiered lecture theatres, useless for other than mass lectures, can be found, now little used. In the near future, few new buildings are likely to be constructed except in rapidly expanding development areas; the problem, far from insoluble at a reasonable cost, becomes now how to convert the existing egg-box into something more flexible.

A second unfortunate mistake was made in constructing new schools so that they were either exclusively for the use of the school or for very limited additional use by adult evening classes. Both for economic reasons and for the educational desirability of combining school and community resources it is now thought desirable that a school building should have maximum use; this has implications for the type and range of accommodation provided. Again in the near future it is the conversion of, or addition to existing schools that may prove more important than the construction of new complexes.

9. The Attitudes of Parents and Community to School

The predominant economic concept of school as instrumental to economic success has been widely adopted by those parents who believe such success possible for their children - mostly those from the higher socio-economic classes together with the most ambitious from the rest. Fundamentally school is seen as a means to an end - and that end is best achieved through academic qualifications. Initially many of these parents were educated at the elitist academic schools but increasingly they are now the product of the new secondary schools with their continuing emphasis on academic attainment. Though often critical of schools in relation to the individual achievement - and less often to the happiness - of their own children, they accept the existing system; they are naturally suspicious of attempts to change it, particularly if they feel their own children may thus be handicapped in the educational hurdle race. Those parents most concerned with maintaining the present system may be a numerical minority but they are the most vocal - and often the most influential.

Research has shown that parents from lower socio-economic groups are perhaps equally concerned with their children's progress at school but understand less well what this implies, and believe less in the possibility of their academic socio-economic success.

It is doubtful if many parents are inspired by the goal of greater educational equality, unless politically committed; certainly those whose children might be less favoured under reforms in this direction

are distinctly hostile. Few understand what the new emphasis on 'individual personal development' means - though many might appreciate it if they did. Perhaps the distressing feature of reforms in several countries has been the difficulty of informing parents in any real sense of the import of such reforms.

The communities surrounding schools have up to now paid little attention to them, perhaps a reflection of the isolating barrier that schools have erected around themselves. Beyond grumbling about the behaviour of pupils on buses on the way to and from school and commenting on the degeneration of manners since 'their days', little interreaction occurs. Only recently, with the conscious development of school-community relationships, has interest begun to grow; from what evidence there is it appears that the community will split in its attitudes to reform much as parents do - vocal minority against, majority uninformed and indifferent, small minority enthusiastic. Employers - as was discussed in an earlier section - on the one hand demand better standards of literacy and numeracy and more stress on the world of work; on the other hand they doubt more and more the utility of the academic component of education for work in industry or commerce.

10. The Context - General Conclusions

An examination of the previous nine sub-sections shows only too clearly how little the lower secondary school caters for the real needs of its adolescent pupils from all socio-economic classes. Unfortunately it makes clear the obstacles to change that exist. To the traditional restrictive authority relationships has been added the impersonality and difficulty of communication of the large school. The existing curriculum emphasises heavily academic subjects, particularly those demanding continuous progress, makes little concession to the expressive and social needs of the adolescent pupils, and often discriminates against girls. 'Orientation' and choice takes place over just those very years when the pupil is most disturbed, particularly to the disadvantage of those whose parents can neither help their children through difficult 'school' periods nor create the atmosphere in which school is, albeit grudgingly, seen to be of value. Separate subjects are studied in fragmented hours throughout the day and week in a timetable devised for academic subjects and traditional teaching. Accommodation is inflexible and unsuited for new methods and for full joint school and community use.

Teachers are trained in an academic tradition in methods that work well with motivated, but badly with uninterested pupils; they depend on an authority too like that of the parents over their pre-adolescent children. Nor generally are adequate support services for advising and re-training teachers for their new role available. Consequently they

remain suspicious of and often highly resistant to change. Non-professional staff who can be a source of valuable adult contacts and who dilute the academic atmosphere of schools are still too few in number. Finally the most vocal and influential groups of parents whose children most benefit from the present system are hostile to change.

It is against this background that the reforms now slowly being introduced must be seen. If the task seems great and the timespan long, needs be that it is begun.

E. THE QUESTION OF AIMS AND OBJECTIVES

To some readers the logical position for this section would be at the beginning of this report. If indeed aims were independent of particular economic or social pressures and if what happened to the adolescent in the school resulted directly from an attempt to achieve those aims, this would be true. But as will be seen this is not the real situation: nowhere is practice in schools related directly through a set of aims to the fundamental goals of education held centrally in a country. The relative importance given to different aims by different groups at all levels of the educational system varies greatly and is much influenced by factors other than the centrally ordained 'statement of goals'.

In most countries how to bring teachers not just to adopt the shell of reforms but to assimilate and accept their real purpose is a central problem. This in part results from a failure to translate general aims into concrete objectives that teachers can use to design learning sequences, in part from a failure in involving teachers in the process itself and in part by a traditional dislike that teachers - and perhaps all of us - have of examining too closely the purposes of their actions.

Doubt indeed exists whether or not it is possible or desirable either to define a complete tree of aims and objectives that derives from 'ultimate goals'. Equally uncertain is, if such a 'tree' were possible, whether it is possible to ensure its complete acceptance and translation into action in the schools. Yet to deny the importance of 'knowing what you are doing and why you are doing it' is patently absurd. Also unless it is believed that all aims should be determined by a participatory process locally at the 'coal-face' of education, some method by which the will of society as a whole can determine at least the general goals of education and which can translate these into objectives that can at least guide planning and practice is necessary. Perhaps equally important is the value to all those concerned with education of the process of defining and discussing aims; it can avoid the blind repetition of practices whose only justification may be tradition. Finally, if any attempt is to be made to hold teachers, schools, and the education system 'accountable' for their success or failure, some definition of aims is necessary to allow 'assessment'; one criterion must be the degree to which a school has accepted overall aims.

1. The Three Levels of Aims and Objectives

The definition of aims and objectives can be looked on as consisting of three levels; 'general aims' such as are specified in Acts of Parliament or administrative documents; 'intermediate objectives' of a level that can be used in planning curriculum and context for a part of the education system; 'working objectives' that can guide the teachers in designing learning sequences. Theoretically these levels should derive one from the other; in fact often at least two sets of 'intermediate objectives' exist: one is derived by administrators from general aims, the other inferred back by teachers from their own working practices.

Before proceeding it might be valuable to consider the nature of, and method of derivation of, these three levels.

i) General Aims

These are normally expressed in statements such as: "The full development of the individual"; "The transmission and transformation of the national culture"; "The increasing of educational equality". Deriving generally from the philosophical and political background of each country's culture, the dominant pressure of the moment may cause new aims to be added and certainly alter the relative importance attached to each. In very general terms most countries' aims cover both those important for society and those important for the individual; differences exist as to the relative importance given to each, both between countries and over time. A parallel dichotomy can be discerned in educational theories and research, the one deriving from sociology and the other from psychology. In schools the same divergence appears as between subject-centred and child-centred practice. As stated before, recently a noticeable trend has developed towards emphasizing less those concerned with society and more those with the individual.

General aims are normally highly abstract statements, often somewhat ambiguous in meaning. Unless transformed into statements that show what is meant in terms of pupil achievement, they are of little use for planners. Thus they need to be translated into 'intermediate objectives'.

ii) Intermediate Objectives

An intermediate objective is a statement of what the student should learn in order to fulfil a general aim, but defined only in sufficient detail to allow the planning and assessment of parts of the education system, not the learning sequences themselves. They may be derived in a series of steps from a general aim, for example:

"The full development of the individual splits down into:

"The development of intellect", "The development of personality", "The development of body".

This is still insufficiently specific to be useful; thus a second stage is needed in which, for example "The development of personality" is broken down into a set of true intermediate objectives:

"The ability to co-operate with a small group for a common end",

"The ability to show initiative in solving unexpected problems",

"A tolerance of others with differing beliefs and characteristics" and many more.

The definitions of this stage, unlike the first which derives from the general culture, are dependent on knowledge of human beings and their behaviour. It implies thus involving both those who study human behaviour in the social sciences and those who experience it in their professional work; these should include teachers themselves, parents, and social workers. At this stage, the essential consideration of the stage of development of the pupils becomes vital - and is too often neglected.

Intermediate objectives allow the overall range of learning experiences necessary to be planned. It is these that teachers must both understand and accept. However for planning actual learning sequences for pupils such objectives have to be further broken down into 'working objectives'.

iii) Working Objectives

These are the reduction of intermediate objectives to statements that can actually be used by teachers to determine and assess learning sequences. For example "The ability to co-operate with a small group for a common end" can be further reduced to: "In a group situation, to contribute to discussion, to listen to others, to agree a common plan, to tolerate idiosyncrasies in others, to do a fair share of the work, etc. etc." Clearly the definition of such objectives needs the closest involvement of the teachers themselves, but pupils, parents, and others who know and work with the actual pupils concerned, can contribute much.

2. Limitations in the Use of Aims and Objectives for Planning

During recent years a mechanistic approach grew up in certain countries both to the planning of parts of the education system and of the learning sequences themselves. Based largely on analogy with the systems approach in engineering, it was considered that if the process of definition of aims outlined above could be taken down to a level at which the actual outcomes in terms of the pupils' learning could be described in terms of a measurable increase in achievement, a learning step could be designed to achieve this. The success then could be assessed, and if necessary remedial action applied. Where learning is not complex and easily measurable - as for instance in mechanical

arithmetic - and where pupil motivation is high, this has proved reasonably successful.

However so many complex cognitive and affective objectives cannot be defined in measurable - or even immediately observable - pupil outcomes. But more serious an objection is that any one such objective can be acquired piecemeal from several different learning sequences; similarly any one sequence may result in part learning of several objectives. Thus no clear one-to-one connection exists; learning experiences have of necessity to be complex.

Perhaps the greatest value of well specified objectives is that it makes possible the planning of the provision of a set of educational experiences and learning sequences that at least covers all the outcomes desired. It also allows some form of assessment to be planned to determine at least approximate success or failure. It can take into account what is in fact a highly essential - and often ignored - facet of the definition of objectives which is the specifying of the relative importance between them. If not clearly stated, different emphases inevitably arise between groups concerned with education - administrators, teachers, parents, employers, and pupils all of whom may well have differing priorities.

3. The Confusion as to Aims among Professionals, Administrators and Teachers

As stated earlier a danger exists that more than one understanding exists of what the intermediate and working objectives and their relative importance are. Perhaps three different, often conflicting sets of aims, are common. The first of these comes from the higher levels of the administration; it consists of the general aims and to some extent a usually incomplete set of intermediate objectives often derived mainly from that general aim which is at the moment most stressed - for instance, 'greater equality'.

However, actual subject syllabuses whether detailed or in the form of 'guidelines', whether coming from central authorities or external examination boards, form a set of intermediate objectives derived almost entirely from the nature of the subject discipline itself, though lip service may be paid in passing to general aims. These are constructed by various 'professionals' - inspectors, subject specialists from universities, subject teachers from schools - who share in common a subject-centred rather than a child-centred approach.

Finally the teachers themselves, though influenced by the subject syllabuses, tend to have their own set of working objectives which often they do not connect with any intermediate objective, let alone a general aim. These working objectives derive in part from tradition, in part from expediency, in part from personal idiosyncracies. Because of the traditional background of the teachers and the value system current

in the schools, these are mostly academic in derivation; it is often proving difficult to bring teachers to consider affective objectives seriously. In some instances, teachers have been persuaded to examine the purposes of their actual teaching practices, sometimes - and this perhaps has proved the most fertile - with pupils, parents, and others. From this, a process of re-thinking has grown that has opened the way to a more positive attitude to reforms.

Clearly this confusion as to aims on the part of different groups concerned militates against the introduction of changes and makes planning difficult. Particularly the growing emphasis on the affective development of the personality which is achieved more by the way learning takes place than from what is learnt and therefore spreads across subject boundaries and posits actions that imply to some extent the abandonment of these, makes it imperative that the whole process of defining aims and objectives should be re-thought. Both the general provision of educational experiences in the overall curriculum and its context and the learning sequences themselves are better planned against a 'tree' of aims and objectives - even if it is understood what practice will not result in its achievement.

This should be designed by those who can combine their knowledge and interpretation of the general aims with an understanding of the needs of the pupils at their particular stage of development. Above all the role of subject specialists at all levels needs to be severely curtailed.

Finally it must be re-emphasised that because of the complex relationship between objectives and practice and because of the essentially human and personal nature of the teaching-learning situation, this will in no way result in 'standard practice' in the schools. It may, however, make more probable that at least the possibility exists that the full range of objectives will be covered by that practice.

4. The Confusion as to Aims amongst Others Concerned with Education

Apart from confusion as to aims that exist among those directly concerned with planning and operating any part of the education system, an equivalent confusion exists amongst those who suffer schools and those who are concerned with its products. Pupils, parents, employers and institutes of full-time education at the subsequent level all have differing concepts of what the aims, and the priorities among them should be. As these groups in various ways exercise pressures on the schools themselves, these are briefly discussed here.

As developed previously in this report, the adolescent pupils have their own particular needs that they can rarely articulate. If they could, the aims they would emphasize would be markedly different from those held by teachers and administrators. In this mismatch in aims lies much of the lack of motivation and hostility of many pupils to school

which, where not overriden by parental pressure, so often results in failure. Parents fall into three groups; those for whom the one aim of school is to give children an academic qualification that will further their career; those who understand little about school, generally avoid contact with it, and are content if their children neither get into serious trouble nor are unduly unhappy; and those for whom school is an instrument of 'them' - the enemy - and who reject its aims completely. This grouping roughly follows the socio-economic classification of society.

Institutions at the next level of education emphasize two aims: that of sifting and pre-selecting pupils from the point of view largely of their 'academic' attainment so that they can be placed in or 'choose' appropriate courses; and that of acquiring a sound grounding in those academic subjects needed for success at the higher level.

Finally employers emphasize the need for literacy and numeracy while complaining of the irrelevance of academic attainment as a criteria for choosing employees, particularly those direct from the lower secondary school. Recently they are beginning to demand greater attention to the development of personal qualities; and a greater understanding of the 'working world'.

5. Conclusions

Most reform comes from either the addition of a new general aim or more commonly from a change of emphasis between them. If this is to be effective a complete 'tree' that reduces the general aims first to intermediate objectives and thence to working objectives is necessary. Such a 'tree' will not permit the development of an educational system or a set of learning sequences that will accurately achieve the aims and objectives, but it will ensure that there is a reasonable possibility of so doing. To ensure that the 'tree' consists of objectives that are really based on the general aims and at the same time are realistic and appropriate to the stage of development of the pupils concerned, the group who construct it should include administrators, social scientists who study the appropriate period of psychological and sociological development of the human being, and, above all, those who have practical and day-by-day experience of the age group. It is particularly important that this 'group' should in no way be dominated by the subject specialists and that teachers should be involved, particularly at the level of the conversion of 'intermediate' to 'working' objectives.

Of equal importance to the process of definition is the necessity that all groups concerned with a particular period of education should come to understand and accept the aims and objectives. In particular teachers who have their own traditional 'working objectives' need to be brought to re-consider the purpose of their actions and to link these to intermediate objectives. Inevitably - and fortunately - this cannot mean that the same learning sequences will be devised by all teachers:

the relationship with objectives is complex, not simple; the personality of the teacher, the context of the particular school, and the group and individual characteristics of the pupils all demand learning sequences that fit particular, not general, circumstances.

II

PROBLEMS AND POSSIBILITIES

So far this report has attempted to analyse the context in which lower secondary education exists; it will now consider changes that are in process or under discussion. It is in the light of the major conclusions of the first section that these will be examined; these could be summarized under three headings. Firstly, that central to all reform must be the consideration of the nature, needs, and potentialities of the adolescent pupils themselves. Secondly, that the three main purposes that are held - with differing emphases - by countries must guide what reforms are expected to achieve: full personal development of individual pupils; greater educational equality, however defined; and a closer integration of school and society particularly in relation to the needs and problems of the 'working world'. Finally, all must be seen in the context of the present social conditions in which adolescents mature and of the professional, administrative and social context of the schools themselves.

In this section, readers are particularly asked to bear with the inevitable generality of statements made. These will not necessarily fit their own national situation: interpretation and interpolation are essential.

A. CHANGES IN STRUCTURE AND ORGANISATION OF THE SYSTEM

Many countries have already effective 'comprehensive' structural re-organisation which brings all pupils in the lower secondary stage into one institution. Others are in the uncomfortable stage of a mixed system - half comprehensive and half selective; some are still contemplating the possibility of change; yet others are content with differentiated schools. This report does not attempt to weigh the merits of the two systems - a barren exercise, as each achieves differing aims. However, it assumes, if the main conclusions from the first section are correct, that whatsoever the structural organisation of schools, the inappropriateness of the early adolescent stage for any form of orientation or selection implies that all will need a curriculum and context which, however rich in opportunities for individual differences in detail, would not be over-academic in emphasis and would be in general

the same for all. The existence of selective academic schools makes it difficult if not impossible to achieve this. Even where change has been complete, the necessary re-thinking of the curriculum has been inhibited; the major criticism of opponents, that academic standards would fall, has been met by an attempt to achieve much the same academic results as in the past. Where change in systems is partial, this is even more marked.

1. Structural Changes Concerning Age of Pupils, Size of Schools and Community Relations

Though in some countries the structural form of comprehensive education has crystallized, in many discussion continues. From the point of view of child development the period of late childhood - approximately eight or more to twelve or thirteen - forms a whole. This has led in some systems to the introduction of a 'middle' or 'intermediate' school. A further argument for this re-organisation is that the early adolescent pupils dominate the present lower secondary stage; not only are their needs quite different from those of late childhood but their behaviour can be disturbing to the younger children. From the adolescents' viewpoint also, childhood is something to escape from: it is better that they are in contact with the older adolescents.

However, this contact with older pupils continues increasingly to be difficult because of the creation of the lower secondary school as a unit, divorced from the upper secondary stage; this is particularly marked where the bulk of fifteen-year-olds either leave school or transfer to the higher stage. This isolation can be countered to some extent by involving the community. Contacts with the upper secondary schools can be organised which involve joint community service and utilize some of the students from the upper schools to help with activities in the lower schools. A further possibility is to develop youth organisations or institutes in addition to the school system embracing the full adolescent age range and perhaps the young adults as well.

Not only the structure is still debated, but also the length of compulsory education itself. Recently two opposing trends have emerged. Those disenchanted with education in general have been joined by a certain section of professional educators who are dismayed by their almost complete failure to motivate and educate a section of their pupils, and advocate reducing the age of compulsory education. The schools thus would be rid of a problem, only to pass it on to society; this group of pupils became the hard core of youth unemployment even before the present crisis and the main source of delinquents. This move now appears to be rejected in most countries, which are seeking solutions either by changing the nature of the curriculum and context within the school or by combining school with work experience.

A trend, largely from the ministries concerned with employment, is towards raising the school-leaving age to absorb youth at present

unemployed. This again has so far been resisted by the education authorities on the grounds that the system already fails with this group and that an extra year of failure would compound the problem. This report argues that in the long term, a very strong case exists for full-time compulsory education to continue at least to sixteen, long enough to include one year of the more settled period of later adolescence, during which 'orientation' and choice should take place. Though outside the lower secondary period, a good case can be made for the continuation of education, perhaps on a part-time basis, up to the age of adulthood at eighteen. Such an argument is based however on a thorough reform of the schools as they are now.

An interesting recent tendency has been towards questioning the size of schools, which, for reasons of economy of scale and from a desire to offer as diverse an educational fare as possible are now seen as unduly large. With size, personal care becomes difficult, staff cohesiveness and intercommunication is ruptured, and relationships with a genuinely local community impossible. This trend is encouraged by various developments that reduce the need for the full complement of specialist teachers in the school. These include the development of well-planned curriculum materials and the use of 'distance learning' combining television and radio with correspondence and intermittent face-to-face contact with either peripatetic tutors or at central points. In particular this opens up the possibility of much smaller schools - or even non-schools - in rural areas where up to now the alternatives have been either undue, expensive, exhausting travel or equally expensive and psychologically doubtful boarding provision. Nevertheless the principle is applicable to urban settings; the suggestion has been made that the lower secondary school should be approximately one hundred and eighty pupils based directly in its community, using fully the resources of that community and distance-learning techniques. The development of a curriculum much less academic, without significant differentiation, and not used for orientation or selection, would facilitate this development.

A further tendency, derived both from its educational desirability and from a demand to use educational buildings and facilities more economically, is the development of various forms of school and community interrelationships, formal or informal. Basically this involves the use of community resources by the school and school resources by the community. The particular need for human adult contacts of adolescents makes this a very promising development; its effects are discussed later. It should however be emphasized that it has particular significance for the present financial stringency and the problem of youth unemployment.

During the last decade, interest developed in the provision of 'alternative schools' - or learning organisations outside the normal system. Many experiments have been tried but the total volume of pupils concerned has always been small. The possibility of schools

within the educational system offering different curricula and context which could be selected by parents on a 'voucher' system has also been canvassed; it has been tried on a limited experimental scale. Such a move would appear likely to perpetuate significant differentiation during the lower secondary stage. Choice up to the end of early adolescence will reflect more the wishes of the parents than the real needs of their children.

2. Structural Changes Concerning Use of 'Time'

The existing time constraints on the use of school premises are beginning to change. The new tendency is to increase the time the school is used by pupils and by the community. With the growing importance of informal activities, aimed more at physical and affective development, but also at capitalising on particular interests of pupils, the school day is expanding to include the late afternoon period. This involves a re-examination of the quantity - and indeed value - of homework given. This sometimes extends to the use of weekend or holiday periods - particularly for 'outdoor physical activities' and for travel for which centres either as 'annexes' to the school, or provided centrally, are being established. Such extension of 'time' brings problems where teaching hours are specified by contracts; recently such activities are becoming part of the contract hours. Use is increasingly made of adult voluntary help from the community. Voluntary help has been easier to organise when school and community have a formal relationship, sharing management premises and facilities. Occasionally this has developed so that adults join school classes during the day and pupils join in adult classes or activities during evenings, weekends and holidays. This increases considerably the essential mixing of adults and adolescents. Sometimes family relationships, difficult during adolescence, have been eased when children and parents find themselves engaged in the same educational activity in the evening on a comparative basis of equality. Problems arise from joint usage, in the sharing of accommodation and equipment, particularly noticeable in the case of dual management without an arbiter, or of the control being entirely in the hands of one side or the other. Sometimes it proves possible for those who teach in school also to act as teachers or animators for the community; however as yet this is difficult to achieve. If the school-community trend is to continue and to increase, initial teacher training will have to train some who are competent and interested to work with both adolescents and adults. This might be valuable in itself as it could result in teachers less isolated from the real life of the community and perhaps more capable of developing a different, less authoritarian, relationship with adolescents.

At regular intervals the possibility of changing the use of time in schools over the year - terms and holidays - arises both from those

concerned to spread the holiday period for adults, and from educationalists who find the present system inappropriate. So far very little has actually changed. Proposals for four terms and four shorter breaks, limiting the summer holiday to perhaps four weeks, have been made but not implemented. In one or two places the energy crisis has led to a minor increase of holidays during the cold as against the hot months. Suggestions have been made but rarely implemented for almost continous school throughout the year linked to a cafeteria system of unit courses, and enabling more immediate action to remedy failure either by repetition or by remedial courses.

3. Conclusions - Changes in Structure

The following appear to be the general trends of recent changes in process or under discussion:

i) The removal of the pre-adolescents from the lower secondary school and their combination with the late primary pupils to form 'middle schools' (approx. from age 8/9 to 12/13).

ii) The continuation and intensification of the isolation of the early adolescents in a separate lower secondary school, thus divorcing them from necessary contacts with older adolescents.

iii) The development of other methods of ensuring early adolescent contacts with older pupils and adults by the use of the community, connection with upper secondary schools, development of 'youth' organisations or institutions.

iv) Moves both to decrease and to increase the compulsory schooling period, neither well accepted, despite the logical need expressed in this report for full-time education till at least 16.

v) A move to decrease, perhaps considerably, the size of schools.

vi) An intensification of the development of school-community links.

vii) An extension of school activities beyond the traditional school day, both in evenings, weekends and holidays.

viii) As with (vii) but combined with the community activities.

ix) A re-arrangement of the school year to make shorter, more frequent holidays; possibly an extension of the total days that the school functions in the year combined with a 'cafeteria' system of courses.

B. DIFFERENTIATION AND CHOICE IN THE CURRICULUM

Given the disturbed nature of early adolescence, the consequent erratic performance and often aberrant behaviour at school, the question of what significant differentiation in curriculum should exist, when it should occur; and how the choice for it should be made is of paramount importance. When a strong emphasis is put on 'equality' as an aim, because of differing pupil persistence resulting from greater or lesser parental pressure, this becomes even more essential. Those countries pursuing this goal have reduced and postponed differentiation as late as possible - but all retain it in some form, at least from the age of fourteen. Those countries less concerned with egalitarian aims have tended to continue to differentiate, sometimes still from the age of eleven at the beginning of the lower secondary school period but more normally after one or two years at twelve or thirteen, though there is a growing tendency to preserve as much common core as possible.

The detailed nature of such options will be further discussed under curriculum change but fundamentally three choices, however organised, are offered: academic; watered-down academic with some technical or commercial subjects; and predominantly practical and non-academic considered to be vocational.

1. The Various Forms that Differentiation Takes

In its most extreme form differentiation is effected by selecting children for separate schools either at the end of the primary stage at approximately eleven or less commonly at thirteen or fourteen, following either a 'middle school' or an extended primary school. Sometimes a 'parallel' curriculum is devised for the first years of the separate schools to facilitate transfer of 'late developers' or misplaced pupils. In practice movement between schools tends to be largely in one direction: from the more academic to the less. Often the different types of school have differing levels of teacher equipment and finance, to the benefit of the most academic. It cannot be maintained that over the period of common curriculum pupils in the different schools have 'equal opportunity'.

Such differentiation can only be justified by the doubtful belief that adolescent and adult achievement can be based accurately on childhood attainment, backed by measures reputedly testing intelligence.

In comprehensive schools, various types of differentiation exist. In the first of these clearly defined streams follow, often with sub-options, the three main divisions similar to those mentioned in the last paragraph. Though these sometimes still start from the first year onwards, implying 'selection' or 'choice' at the end of the primary school period, more normally they commence after one or two common

years (though even these sometimes have significant choices of single key subjects or subject levels); less commonly this may be after three years. Some systems have a gradually decreasing common core between the streams and elaborate arrangements for facilitating transfer between them. Yet other systems have a common core, small or large, and a cafeteria of individual subjects and subject levels; these can be freely chosen, or certain combinations can be mandatory. Finally some systems maintain as nearly as possible a common curriculum throughout the lower secondary school. These all however allow either a significant choice between certain key academic subjects or between levels in the same subjects. Finally in most systems a 'special' or 'remedial' stream or class exists for the first two or three years. It has been noted that where a common curriculum is maintained a tendency exists to increase the number of pupils labelled remedial.

However, in all forms of differentiation, the key problem is more when it takes place than what its exact nature is. In fact in all countries it occurs either during the highly inappropriate period of early adolescence or immediately following it, using the attainment of these years as criteria for choice or selection.

A further set of differentiations occur: the first is when pupils are placed according to their attainment and apparent intelligence in classes which are ranked in order - normally called 'streaming'. The streams follow the same curriculum though usually modified for some of the 'lower' streams. A variant of this, called 'broad-based' streaming is to divide the whole age cohort into three bands, according to apparent intelligence and ability; each band contains three, four, or even more parallel classes. As with full streaming the lower band may follow a modified curriculum. In some cases all 'streaming' is abandoned except in the key academic subjects, usually mathematics and foreign languages where pupils are 'streamed' - in this case called 'setted' - according to their apparent ability in each subject. Again 'sets' generally follow the same syllabus though sometimes at different paces and depths; however the lower 'sets' may follow a different syllabus entirely.

As discussed earlier the ranking order of the prestige of subjects, courses, options, sets or streams, is from most academic to least. However, differences in the intensity with which pupils experience the belonging to the least regarded group as a failure differs considerably between various organisations of differentiation. The bottom streams in a totally streamed school suffer the worst; those who follow mostly a common curriculum but 'choose' or are guided to limited choices such as lower mathematics and woodwork rather than advanced mathematics and physics probably the least.

However, it is not necessarily true that greater attainment results from a common core curriculum particularly from pupils from lower socio-economic groups. Most comprehensive schools, following a common curriculum to the greatest degree and for the longest time, offer a basically academic group of subjects taught largely by traditional

methods. For many reasons, discussed elsewhere, this is not appropriate for the young adolescent pupils nor is the steady progress expected in them forthcoming at this age unless strong parental pressure is exerted. Thus pupils from lower socio-economic classes may do worse in such a curriculum than in one containing more practical and expressive work and having more apparent value to them. If a special curriculum derived for the less 'academic' nevertheless allows some of the necessary subjects to be 'picked up' after the age of fifteen, transfer to academic - or at least academic cum-technical courses- becomes possible. Unless the whole body of early adolescent pupils are given a common appropriate curriculum, discussed in the next section, it is perhaps better to provide those who do not have the advantage of supportive parents with a course that provides intrinsic motivation - even if it does mean early differentiation. This can lead not only to greater attainment and benefits but if so planned can also lead to more equality. If pupils leave school with a positive attitude to education, even if with an attainment lower than their potential, the possibility of their taking up recurrent education opportunities is greatly increased. The difficulty of this approach is that such division tends to become self-fulfilling; and a lower overall attainment results.

Apart from the various types of differentiation described above, an unsatisfied need for a particular form of it exists. The emphasis on individual personal development with its corollary that each pupil has differing needs and interests, implies the provision of differing content and methods. Suffice it to re-emphasize that the objection to the differentiations commonly made is their significance for future education or employment; those that merely diversify the subjects offered and perhaps better the topics within those allowing also differing styles of learning are clearly benign.

A particular problem rises from the irregular onset and the erratic nature of early adolescence; pupils start and stop, develop enthusiasms with a comparatively short life, and generally do not progress at a steady rate. The normal 'lock-step' class teaching methods are particularly inappropriate; differentiation as to pace as well as content and method is desirable; both of these aspects will be discussed in the section on curriculum.

A form of differentiation under discussion in some countries (e. g. Belgium) would meet to some extent the problem of erratic progress. This suggests the provision of 'units' of work, perhaps taken for a term, in subjects or interdisciplinary areas; a certain maximum and minimum would be expected, but subjects need not be studied sequentially throughout the course i. e. over two years, perhaps three 'mathematics' units would be obligatory. This would allow for changing interests as well as waxing and waning effort where 'repeating' is current, it allows the repetition of such a term in one subject instead of the horror of the full repetition of a year. An ancillary valuable aspect would be the mixing of pupils of differing ages in the same groups.

Linked with differentiation is the problem of the completely common curriculum in which minimum attainment is required before progressing to the next year. Such a system, involving as it does the 'disgrace' and 'failure' of having to repeat a year with younger children, is particularly damaging during early adolescence. All arguments, psychological and educational, are against this 're-doublement'; it is strange that it still exists in some countries. Generally the problem of inadequate attainment is now seen more as being limited to certain key 'hierarchic' subjects such as mathematics and literacy. The tendency is either to provide special remedial groups to overcome deficiencies in these or to arrange the withdrawal of individuals or small groups for special tuition.

2. The Problems of How Choice is Made Between Differentiations

Where significant differentiation exists, 'choice between' or 'selection for' has to be made. How such choice is made and on what criteria it is based is vitally important. It can be based on previous attainment in school work, generally or in key subjects; this attainment can be judged by continuous assessment by teachers or by so-called objective attainment examination or tests. It can include an estimate of the potential for attainment not yet realised, based on the impressions of teachers or on psychological tests of aptitude. It can take into consideration the personality of the pupils, their stability, powers of concentration, motivation towards the school. It can also weigh the degree of parental support likely; it is rarely admitted that the latter is done, but consciously or sub-consciously it often affects the attitudes of teachers. The 'choice' or 'selection' can be made by the pupil, by the parents, by the teachers, or by various combinations of these. It can involve professional guidance personnel and psychological testing services.

The greatest problem is that it is the potential performance of pupils in a new educational situation that has to be estimated; over the period of rapid development in adolescence this is particularly difficult. Even where later transfer is made reasonably easy, correct choice is very important; a wrong decision results either in waste of opportunity or in a damaging sense of failure.

The age at which the choice has to be made is the essential factor. If made in late childhood before the onset of adolescence, normally before the age of thirteen, it reflects the particular strengths of this stage of development. It certainly is not accurately predictive of their attainment when the powers of abstract reasoning develop during adolescence: it is the personality of the child, which can develop in so many different directions later, that is considered. But above all children reflect closely their parents. They cannot be expected to play a real part at this age in making a choice; they are still at the 'I want to be an astronaut' stage. Needless to say the 'choices' sought by parents are related to their socio-economic class.

If the choice is delayed until the early adolescent period, it is so affected by the individual's particular path through this troubled period and the degree of parental support and pressure as to be both inaccurate and very influenced by socio-economic class.

If the choice is delayed until at least a year into the later adolescent period, school attainment is more likely to reflect the potential mature capacity; personal identity is beginning to develop and personality to bear a reasonable relationship to that of the future adult. Pupils become interested in their futures and more capable of making choices independent of the influence either of parents or of their peer groups. Only at this age can a real choice be made.

Finally it is now common to involve both pupil and parent in the process of choice and even in some countries to leave the final choice to the parent. The degree to which the school can impose its decision will be related to the confidence of the parents (vis-à-vis the school) which is much greater in the higher socio-economic classes; this once again reinforces differences between classes.

3. Conclusions

i) There is a tendency to delay differentiation and to retain a common curriculum as late as possible.

ii) This tendency, owing to the academic nature of all common curricula, does not necessarily result in better attainment, particularly from pupils from lower socio-economic classes.

iii) Unless a common curriculum is made appropriate to the needs of all early adolescents and not used for selection, courses with more apparent relevance to vocation may prove more successful with pupils from lower socio-economic backgrounds.

iv) Forms of highly flexible differentiation with a cafeteria of choices and facilities for easy transfer are an alternative to the common curriculum.

v) Repetition of 'years', extremely damaging to the early adolescent, is gradually being abandoned.

vi) The attainment and personality of childhood is manifestly of doubtful value for predicting future academic success.

vii) The irregularity of onset, the moodiness, the inconsistency of school attainment, combined with the differing capacity of parents from different socio-economic classes to help or to pressure their children, makes early adolescence a highly inappropriate period for orientation and the making of significant choices.

viii) Effective choice is only possible based on the attainment and personality of the pupil assessed during the more settled period of later adolescence.

C. PROBLEMS CONCERNED WITH CURRICULUM - CONTENT AND METHOD

At the centre of each educational system sit pupils trying - or not - to learn, taught or guided by a teacher. What and how they learn is the essential heart of the matter which must be the main target of all reform. In the lower secondary stage these pupils are largely in the early years of adolescence. For the most part recent reforms have aimed at equalizing their chances - or more recently that of their socio-economic class rather than of them individually - a matter, regrettably perhaps, of indifference to them. More recently the system is groping towards 'developing fully their personality' which, if it could come to terms with real needs of their age, they would perhaps appreciate. Meanwhile they are offered a desiccated fare of academic knowledge which they are pressurized to accept by teachers and by those parents who recognize its significance for the future. The facts that they are forced to learn, together with a set of somewhat mechanical problem-solving processes, are taught by lock-step class-teaching methods and learnt largely by memorisation.

Instead of this somewhat weary procedure of jumping through inexplicable hoops, personal development calls for opportunities for action and expression, both emotional and physical, for new interpersonal experiences.

In later adolescence, the adult world begins to open up to them, their intellectual abilities blossom, their curiosity about the real world they are about to enter expands - but system and school offer yet more facts about yet more unrelated academic fragments of reality.

This section concerns itself with the curriculum - what is learnt and how, and in what context of social relationships. Content and method are closely intermingled, some learning coming more from the way pupils learn than from what they learn. Nevertheless it is convenient to examine the curriculum from these two different angles.

1. The Content of the Curriculum

An examination of the curriculum of the first secondary years immediately demonstrates that the old elite academic school has dominated the choice of content. The subjects taken are much the same, with some postponement of the more difficult, such as foreign or classical languages; the syllabuses too, though sometimes watered down, have altered little. Some changes have been made, more commonly in the first years than later. Some form of 'integrated studies'

is common, though often these do not amount to more than a somewhat uncomfortable garment, tailored from the 'academic' content of history and geography. Social studies, which attempts the description of and understanding of society, has sometimes been introduced; unfortunately its content would interest far more the late than the early adolescent - but often it is dropped at the later stage. In most cases a minimal time - and importance - is given to expressive, creative, and physical 'subjects'. No little attempt has been made either to link the curriculum generally or to introduce a new area in it which would enable pupils to understand the world they are going to work in.

Because the early years are very generally used for orientation leading to choice between differentiated curricula and because prestige will go to choosing or being selected for the most 'academic' course, the emphasis in the curriculum has itself to be on academic subjects. Thus all must attempt the early stages of these subjects which will be an essential part of the future academic course - regardless of whether this is appropriateness for the pupils' stage of development. A strange anomaly exists in some systems in which it is considered that there is a group of pupils who cannot possibly attempt successfully this academic fare. For these a curriculum has been designed that really attempts to meet many of the needs of early adolescence, with emphasis on creation, on expression, and on physical activities. Such a curriculum has a potentiality for intrinsically motivating pupils; unfortunately often its prestige within a school is so low that to belong to it is an admission of failure.

Apart from such courses for 'those not capable of abstract reasoning' and a few experimental schools, curricula have not been designed with adolescence in mind. Instead it derives from 'subject discipline', thinking that in its turn stems from the universities; apart from the basic problem of relevance and motivation, it is very doubtful if the particular way of thinking that can come through advanced study of a discipline can in any way be understood by pupils under sixteen. However, the recent emphasis on individual personal development is calling this to question; cautiously content is being introduced, too little and for too short a time, that is related to the pupils' real needs. Expressive, creative and physical activities are allowed into the curriculum, as are also a widening set of optional 'subjects' or topics designed to latch onto individual interests; more recently some attempts have been made to introduce 'career education'. It is sad that the continuing prestige of the academic subjects and the minimal time and resources given to these new activities results in their being undervalued by teachers, pupils and parents - and offered mainly to the 'less academic' groups.

What might be offered will be discussed later but one caveat must be issued. Recently a school of opinion has made "relevance to the interests of the pupils" the main criteria for selection of curriculum content. During early adolescence particularly this is a somewhat

barren approach. The pupils are wrapped up in their personal needs and have little 'interest' of a lasting kind in any fields of knowledge. They are as easily bored by local community studies as by history and geography, unless such studies give opportunities for actions and expressions. Perhaps the only real area of knowledge that interests them is their own bodies and physiological - and for that matter, psychological - development. Generally to emphasize 'interests' rather than 'needs' is dubious; interests can be aroused if needs are being met; unfortunately the existing curriculum neither arouses interests nor meets needs.

The subjects that make up the existing curriculum differ both in kind and in the relative importance accorded to them. Most valued are the 'key' subjects; mathematics, foreign or classical languages - the latter now comparatively rare - and the mother tongue. Mathematics, which in some systems has replaced Latin as the magic 'logical key' to academic success, perhaps causes the most problems. One suspects that the exploded theory of direct transferability of 'logicality' once held as the justification for Latin, lies behind this, though not often now voiced. The contents of mathematics at this stage - and particularly of modern mathematics-have probably no more direct applicability to overall logical development than had the classical languages. Being dependent on the sequential learning of a set of related concepts, progress is particularly likely to be disrupted by the erratic attainment in early adolescence. Yet the subject is emphasized from the earliest years; it is one of the main criteria used for choice of courses. At some stage in all countries, some differentiation in level or in content of mathematics is introduced. Most agreed that, in the later stage of adolescence, mathematics is a valuable discipline on which to exercise the powers of abstract reasoning; certainly it is an essential 'tool' for many other disciplines. But little evidence is available to show that starting 'serious' mathematics early has any effect on the standards achieved later. A real possibility exists that pupils, once past their troubled years, and motivated to learn either through the intrinsic interest of the abstract manipulation of concepts or through the seen need for mathematics as a tool, can learn in a short period all that they have struggled with, often unsuccessfully, in the years before.

This in no way denies the real need that adolescents have for reasonable numeracy or the continuation of mathematics both as an interest and as a tool for scientific and practical problems during this period. It does however imply that it is not made central and that a systematic approach is postponed until perhaps the age of fourteen/fifteen.

The second key subject, foreign languages, poses a more complex problem. The motives for its introduction are twofold; the relative importance between the two varies according to the actual need to know a language, internationally useful, in countries. The first of these is

that it is essential for most future academic courses; it is difficult, therefore selective; and thus it is introduced as a criteria for future choice. But secondly, in many countries a knowledge of a foreign language is of considerable value, not only for academic study. However approached, a foreign language is difficult to learn away from the context of considerable use and practice. If learnt grammatically by traditional means it is conceptually difficult. If learnt by direct method with much repetitive work it becomes boring after the first few lessons and requires good motivation to maintain progress. Because of its difficulty or its monotony there is normally a considerable resistance among many pupils to learning it, most marked in those countries where necessity is not apparent, and among pupils from lower socio-economic classes whose parents have no tradition of speaking a foreign language. Attempts have been made to limit the first years to as much direct learning as possible combined with study of the 'culture' of the foreign country and exchanges of letters with and visits to pupils from it. How successful such courses have been is controversial; but it is certain that for non-motivated pupils they represent a possible solution.

A possible remedy lies in the postponement of the serious learning of foreign languages until they can be really studied intensively. What little experience there is of subjecting motivated late adolescents to crash courses, such as are given to adults, has proved promising.

The inclusion of and emphasis on 'serious' mathematics and foreign languages is the greatest obstacle to the creation of an appropriate curriculum. The other 'key' subject, 'mother tongue', if considered as a means of communication rather than an academic study of literature and of grammatical and syntactical structure, is clearly of central importance; to communicate and to express are basic adolescent needs. Increasingly it is seen as a vehicle for expression; greater emphasis is put on oral communication, often linked with the introduction of drama as an essential component. Gradually too it is becoming recognised that all oral communication can be learnt best in the context of 'small group' work in many different subjects; reading and writing develop quickly where either individualized work-card or 'research' projects predominate: language develops through use.

A further set of academic subjects, less highly valued, is normally included. These are considered to transmit essential knowledge either of the national culture or of the physical universe. Attainment in these is normally less important as a criterion for choice. Nor is their study in early years thought to be so essential for the ultimate achievement of high standards later. This group comprises subjects such as history, geography, social studies, and the natural and physical sciences. Their value for the purpose they are introduced is doubtful: little factual knowledge learnt in these years is retained later in life; the pupils are too immature to grasp the particular intellectual discipline inherent in such subjects. However, by introducing new methods, they can become

vehicles for learning ways of working, affective attributes, and communication skills. The problem is to convince teachers and those concerned with assessment that this indeed is the real aim - not knowledge of the subject itself.

Physical activity is now normally part of the curriculum; much difference exists between countries as to how seriously it is taken. Regrettably the time allowed for it diminishes towards the end of the lower secondary period because of the pressure for academic achievement. To gymnastics has been added not only team games but in many systems opportunities for many outdoor activities - sailing, climbing, hiking. These are proving valuable both in developing various affective attributes and in increasing informal contacts between adults and adolescents. School-community relationships are making available new facilities for various sports and activities and aiding the identification of adults other than teachers to help. For boys particularly early adolescence is a period when physical activity is not only enjoyed but which allows the release of tensions and aggressions.

Less widely introduced than physical activities, and generally accorded less importance, are creative and expressive activities - mime, dance, music, two-and three-dimensional arts and applied arts and crafts. Of essential importance in satisfying the need to 'do' and to 'make' they permit the introduction of a wide range of interpersonal situations that lead to affective development and to the improvement of communication skills. Often forgotten is that they can also be used for cognitive development: the process of analysis, synthesis, erection and testing of hypotheses applies as well to a practical or interpersonal problem as to an academic one. Generally when introduced these subjects are 'poor relatives' - low in prestige and starved of resources. Often they are denied to the 'academic' pupils - whose needs are as great as for others; then, because they are given only to the less successful pupils, their prestige is further diminished. Unfortunately a reaction has been to increase markedly the theoretical - thus 'more respectable' - content of the syllabus in these subjects. This is particularly so when they have become part of the terminal examination. This reduces the real value of the subject, making it a pale shadow of the academic subjects, while at the same time reducing its attraction for the academically-unmotivated pupils.

The early sexual maturity in adolescence and the greater permissiveness of modern society towards sexual activity has caused most systems to introduce "sex education" into the curriculum. This however varies from a simple biological description to a full treatment usually in the whole context of interpersonal relationships. In many ways the problem goes deeper than just the 'giving of information'. It is often only at the time when sexual relationships become a real possibility - which can be at any age after thirteen - that pupils seem able really to grasp the significance of what is told to them. Perhaps the greatest need is a system of personal care and informal relationships

with staff or other adults so that individual pupils can talk to appropriate adults when the need is greatest.

Recently two new sets of activities, rather than 'subjects', have been added to the curriculum, normally during the last one or two years. The first of these involves working for the community, whether during the hours of formal schooling or after. This may include helping old people in their homes, constructing a children's playground, or clearing a derelict area. The practical work may or may not be connected in some way with more formal school work in mother tongue or social studies. Such activities meet certain of the needs of adolescents, particularly for adult contacts, but are probably more valuable towards the end of our period when the later years of adolescence have commenced. Problems occur: legal restrictions from school regulations, and responsibility for accidents, can cause difficulties; the community may fail to understand the value of such work and be hostile; teachers with the skills to exploit such activities are comparatively rare. However where new school-community relationships have been introduced, some difficulties are easier to overcome.

The second set of activities gives pupils a greater understanding and knowledge of the world of work. At the present only little developed, this is an essential move to achieve one vital aspect of personal development: the fitting of the individual for the working world, which implies having the necessary skills and an understanding of both what part industry and commerce play in our society and what it would be like to work in different roles in them. This important question will be discussed fully in section E 3.

2. Common-core Curriculum

Of cardinal importance is the question of the extent to which there should be a common curriculum - or at least a common 'core' to it. As discussed elsewhere in this report, the existing common curriculum of largely academic subjects has caused the under-achievement and failure of a substantial body of pupils mainly from lower socio-economic backgrounds. However, even if a new curriculum were introduced which attempted to meet the real needs of all adolescents and which eschewed orientation in the earlier years, the problem of how much should be common would remain.

The trend to fit learning at least in part to the particular needs of individuals - to some extent also to their interests - and to place it in the local context of the environment and the community implies some autonomy and flexibility as to content and method. Also the particular abilities and enthusiasms of the staff of any school are best used, not suppressed; this again implies variations between school and school, even between class and class.

If the emphasis on learning the content of a subject is replaced by one on the achievement of affective and cognitive objectives through

work in it, the main stumbling block to allowing more freedom to the school and the individual is removed. This implies change not only in centralised administrative requirements but also in examinations in decentralised systems.

The major questions have to be answered: is there a minimum "common survival kit" of knowledge and skills that all pupils should have by the end of the lower secondary stage - and if so, what is it?; how can schools be held reasonably "accountable" in such conditions of freedom?

Given that individuals differ in their needs, it is highly probable that in any one society there is a range of needs that are common to all. In discussing these it is highly desirable to separate out what are basic necessities from those that would be useful - though as in all categorisation a query zone will exist on the border. If this is not done, then reasons will be found for including all traditional knowledge: instruction in history (rather than any particular historical facts) is certainly of value, but is it a basic essential?

Little has as yet been done to sort out the ingredients of this kit: most would agree that it would include an acceptable minimum standard - difficult to designate - of oracy, literacy and numeracy. Beyond this is confusion. Perhaps a basic understanding of how society functions, including particularly the working world, of the whole field of personal relationships including sexual relations, and of the practical applications of technology to everyday life should be the limit of prescribed content. Beyond this it is perhaps areas of activity that should be demanded rather than precise content. For instance, expression, creation, and physical activities are essential, but if one individual expresses his or her self through painting, another through dance, and yet another through making practical artifacts this is surely desirable. If all the objectives attainable through project work are achieved in one case by a small group studying local history through archives and in another by the planning and building of a children's playground, this again is desirable. If the common core is prescribed in the above terms it should cut out the danger of concentration only on the minimum standard to be achieved.

What does, however, become important is that the aims and objectives of these activities - in particular the intermediate objectives - are understood and reasonably well accepted by all: without this chaos can ensue.

If towards the end of the lower secondary period a curriculum that will allow orientation is introduced, the situation would be changed. The case for a more common curriculum, particularly in the academic subjects, becomes strong.

The greater the autonomy granted to schools, the greater the demand will be for accountability; this will be further discussed under 'assessment' and the 'estimated control of schools'. If a common core curriculum is interpreted in the light of the above paragraphs, any

assessment of a schools' work will have to take diverse forms: testing or examinations will only suffice for a limited - if essential - part of it.

3. Methods of Learning in the Curriculum

The desire to postpone significant choice as late as possible and to avoid obvious discrimination based on apparent ability has resulted in pupils of mixed attainment being grouped in the same class - the 'mixed-ability' class. How to organise learning in this situation is a problem, which is particularly pressing in relation to the key subjects, mathematics and foreign languages. However, similar difficulties occur in all subjects where a core of facts and interlinked concepts have to be learnt. Where it is understood that it is ways of learning and thinking, of behaving and communicating, that should be the real goals, the problem disappears.

Added to the existing differences in attainment and apparent ability among the pupils of a mixed-ability class there is the problem of the erratic performance of adolescence, which affects streamed classes as well. Clearly 'lock-step' class teaching methods are inappropriate: two separate problems have to be solved. The first of these is on the time dimension; pupils progress at differing rates, one from the other, but also their personal rate of progress over time is uneven. Thus pupils in one class will be spread out over many stages of the same course.

The second problem, resulting from differing ability, interests, and motivation, is that different pupils are more able - or more motivated - to study concepts at different depths, through different materials, and perhaps by different methods. For example, the concept of the conversion of electrical energy into heat can be taken at its simplest as the understanding that such a phenomenon occurs and how this is used in practice; it can be taken at a level of the recognition of variables involved e. g. strength of current, thickness and constitution of the heating element; or at the level of the mathematical relationships between three variables. It can be learnt through demonstration, exposition, and discussion, through a process of guided practical work, or by structured 'enquiry' methods. Within a mixed ability class will be pupils capable of understanding at each level and who might reach this understanding by any one of the three methods or by a combination of them.

Early attempts to resolve the dilemma concentrated on the time dimension. At its crudest, the class was divided into two or three sub-groups which were then taught separately in a largely traditional manner, with perhaps all doing more written exercises. Apart from difficulties in ensuring that each group concentrated only on the exposition meant for it, the discrimination of streaming or setting by classes was reproduced within the class. However, this solution has been replaced by that of using forms of pupil materials that can be

worked through with a minimum of teacher guidance and stimulus, often with self-checking mechanisms built in. Originally such materials were of the rigid programme learning type which proved unmotivating for many pupils. Recent materials based on the need to interest and to motivate as well as to proceed by logical steps have proved much more successful. Pupils can work through such courses at their own rate either individually or in pairs; monotony can be reduced by introducing group activities on projects, and 'slots' to allow teachers to exercise their skills in stimulating and clarifying by exposition to the whole class or a sub-group of it.

Such a method while solving the problem along the time dimension does not tackle the difficulty of the need for differing depth and width of material and alternative methods of learning. In the 'sequential-concept' subjects such as mathematics and the physical sciences the sequence of concepts need to be presented in different ways - for instance with greater or less examples of application; differing materials and learning routes need to aim at different levels of understanding; ancillary material which treats more complex applications of the concept need to be provided.

Various combinations with the 'variable-time' methods outlined above are possible. Progress through the material can be allowed without restraint; thus different pupils will be studying different concepts through different materials at any given time. This makes the teachers' problem of the control both of progress and of the physical materials difficult; it also obliges them to be knowledgeable in the subject matter of, and prepared to cope with, problems over the whole course at any given time - no 'looking up' of material the evening before teaching it by class methods! More manageable is to control rate of progress so that the whole class study the same concept at the same time but at different depths and through different materials. This, less desirable perhaps for the highly motivated and able pupil, is more easily handled by the teacher. It allows also each concept to be introduced and perhaps summarized finally by the teacher in an exposition to a class. This is psychologically important, for teachers have been trained in this skill and consciously or sub-consciously feel deprived if unable to exercise it. In neither case is it necessary that the work be undertaken individually; it is often more desirable that it should be done in pairs or in small groups.

Problems arise in the use of such methods. Though audiovisual presentation of material is possible, for reasons of economy it is the printed word that must mostly be used. The language of the material is designed to match the reading capacity of the pupils, but this proves difficult for those with a low level of literacy. It is not just a matter of the capacity (or not) to read and understand; it is that, for many, the printed or written word is an unnatural means of communication. Motivation to work through material is as necessary as it is to learn in a class; and this is the age of variable or feeble motivation.

For the other academic subjects little difficulty comes from using mixed ability groups, unless the stress is put on the learning of knowledge rather than other cognitive and affective skills. Project work in small groups has been found effective particularly if other activities than 'researching' by reading and 'writing-up' can be built into them. Some adolescents who read and write poorly are capable both verbally and practically; some have powers of organisation greater than their more academic peers. The creative, expressive and physical subjects pose no problems; often they give opportunities for the less academic to shine.

However the introduction of individual and small group methods for at least a reasonable proportion of the curriculum is justified in itself quite apart from the need to solve the problem of the mixed-ability group. Firstly it is the most effective way of overcoming the inevitable lacunae in progress of early adolescence which in the absence of parental support can result in 'dropping-out'. But more importantly, many intermediate objectives that derive from the goal of the 'full development of the personality' can only be achieved by 'methods' not by 'content'. How can 'the ability to co-operate with a small group to achieve a common end' be achieved except by small groups working together? How can 'the ability to take initiatives when faced with unexpected problems' be developed without learning situations requiring research or actions outside routine learning? How can empathy with and tolerance for others grow without constant interpersonal actions? And so on with many others. To this must be added the opinion of many theorists, backed by common-sense observation, that some knowledge acquired by 'enquiry' is better understood and longer retained than that merely absorbed; active learning is more effective than passive.

However, the introduction of new methods results in the greatest problem of all: the converting of teachers to new reforms. Teachers wish to teach, and to them 'teaching' is exposition, questioning, and assessing. They also have acquired knowledge of their subject; they wish to impart it. Both during their own schooling and at college or university they themselves have learnt passively from class teaching methods. To induce these changes a massive drive is needed to convert, support, and reward teachers - through in-service training, support services, and perhaps a lesser teaching load. Similarly initial training must not only be directed towards new goals but the learning methods used should mirror those that the young teachers will be expected to apply in the schools. A thesis of this report is that all change is slow - perhaps twenty-five years: but to achieve this, the work of changing teachers' attitudes and skills must start now.

4. Summary of Main Trends

i) The main trend is from a curriculum dominating the needs of the more academic courses that will follow, to one based on the nature and needs of adolescent pupils themselves.

ii) The main problems lie in mathematics and foreign languages which are the key subjects and are used as the main criteria for 'choice'.

iii) The possibility should be considered of postponing a serious study of mathematics and foreign languages till the later years of adolescence at fifteen. This should not lower standards as motivated pupils working intensively cover ground quickly. This does not preclude necessary numeracy, nor the continuation of mathematics as a stimulus and 'practical' subject in the early years.

iv) 'Mother tongue' is the central core of any curriculum, but for communication oral as well as written rather than for the study of grammar, syntax and literature.

v) Other academic subjects e.g. history, social studies, can be valuable as a vehicle for learning cognitive and affective skills; much less emphasis should be put on the knowledge of the facts.

vi) Problem-based studies that cut across subject fields - and involve others not in a normal curriculum - can play a valuable part.

vii) Creative, expressive and physical activities need emphasizing and being given prestige, resources, and a considerable allocation of time.

viii) The curriculum and the choices within it need to be considered in the light of girls' needs - both to have real equality of opportunities and benefits and to cover their particular needs.

ix) Activities involving the community are a valuable addition to the curriculum, particularly for the later years of adolescence.

x) The introduction of a curriculum that will enable individuals to understand the world of work and to choose their career appropriately in it is very important at this stage.

xi) Mixed ability classes for sequential subjects imply small group and individual work using differentiated materials; different speed of progress, irregular adolescent attainment, and different ability and interests must all be catered for.

xii) For other subjects mixed ability need not pose problems unless acquisition of knowledge of the subject is stressed.

xiii) Small group and individual work involving projects and 'enquiry' as a part of the curriculum are essential to achieve many affective and some cognitive objectives; it is also likely to result in better understanding and retention of some aspects of the work.

xiv) General sex education as part of full interpersonal relations has become essential at this stage; perhaps more important

is the encouragement of a system and of teacher-pupil relationships that will encourage individual pupils to seek advice when the need is greatest.

xv) A key problem exists in converting teachers to new methods. This can only be met by a major 'comprehensive' drive on teacher training - both initial and in-service.

xvi) Consideration needs to be given as to what a basic common core of attainment - a basic survival kit - should be for all pupils; in particular to differentiate between essential skills and knowledge, and areas of activity that can be left imprecise.

D. THE PROBLEM OF THOSE WHO 'FAIL' IN SCHOOL

All countries show concern for a group of pupils who fail entirely to benefit from school, who are unmotivated, who at the best sit their time out passively, at the worst behave disruptively. This group, particularly during the years of early adolescence, contains a high proportion of 'juvenile delinquents'. However, such 'failure' is an extreme case of what is a much wider problem of general under-attainment by pupils from lower socio-economic backgrounds.

The size of the problem is difficult to estimate and depends on criteria of 'failure' chosen; but estimates range from three to fifteen percent of a year group. However, in decayed city centres or areas of rural poverty the percentage in any one school can rise to forty or more. At these levels the problem of 'discipline' becomes paramount; it is more a matter of 'containment' than 'education'. The pupils constituting this group come from differing backgrounds and have 'failed' for differing causes.

1. Differing Sub-Groups Among 'Failures'

i) Those from the 'culture of poverty'

Perhaps the largest part of the total group come from a social background of poverty with its own 'sub-culture', its own beliefs, its own drives. Such a 'sub-culture of poverty' is often rich in inter-personal relationships and strongly supportive to its own kind, but defensive towards the rest of society; it is often hostile both to institutions and those in authority. 'We', the poor, are against 'they', the rest; in particular against the police, welfare officials, and teachers. In some areas families are 'matriarchal' where no stable relationship with a man exists. Above all socio-economic success is considered 'not for us'. The accepted codes of behaviour differ markedly from those of the socio-economic classes who plan and operate schools.

For example, stealing, except from those in the 'sub-culture' themselves, is not morally wrong, nor is violence.

'Cultures of poverty' vary. Some are essentially urban, whether in decayed city centres or in 'shanty towns' on the fringes of cities. Sometimes the sub-culture is drawn from a substantial racial minority; the difficulties are then compounded. Sometimes new migrants, whether racially different or not, form the majority, often adding a linguistic difficulties. In rural areas with a declining agriculture, the more ambitious and able have left for the cities, leaving a depressed group behind. These sub-cultures are often grouped geographically, with the result that large concentrations of pupils from them are found in certain schools. But most communities, and thus most schools, have individual families that fall into this category. Whatever the relative importance of the part played by 'nature' and 'nurture' in shaping intelligence, any teacher who has worked with these pupils will have noted that the full range of 'intelligence' in the everyday interpretation of the word, exists among them; this is confirmed by non-verbal 'intelligence' tests. Unfortunately it is normally applied to outwitting, rather than benefiting from, the school.

ii) Early adolescent drop-outs from lower socio-economic classes

Many pupils from lower socio-economic classes who have attained at least adequately up to adolescence become then erratic in performance, experience failure, have inadequate support and pressure from parents to recover from setbacks, and being highly influenced by a peer group hostile or indifferent to school, give up and drop out. In many schools these form a substantial group. It is a major source also of the much wider problem of under-achievement.

iii) Slow learners

For whatever reason - inadequate early childhood experience or congenital - some children have particular difficulties in memorizing, retaining and in operating logical processes. Such pupils are often reasonably motivated towards school; they pose a different problem to the two previous groups but suffer often from being treated in the same way.

iv) Emotionally-disturbed pupils

Apart from the normal emotional disturbances of adolescence, there is always a number of basically disturbed children in any school. The problem can be a permanent deep-seated psychological disequilibrium; it can be a temporary - but equally devastating while it lasts - disturbance resulting from current family problems. The increase in 'broken homes' through divorce or separation has markedly increased

the number of emotionally disturbed children. Such pupils - and perhaps in intensity they are the most difficult to handle - come from all socio-economic classes and can have all degrees of intelligence. Few countries have adequate psychological or welfare services to deal with more than the most extreme cases.

v) Linguistically-handicapped pupils

In some countries linguistic minorities are severely handicapped by having to work in what is to them a foreign language. A dialect that is pronouncedly different from the standard language of a country can have the same effect. The problem becomes intensified when migration occurs from country districts where such a dialect exists to cities where standard speech is normal.

vi) Mentally-retarded pupils

This term is not intended to apply to the group classified as 'ineducable' but those immediately above it - those considered as 'educationally sub-normal'. In the past such pupils were segregated in special schools; but because of doubts as to wisdom of this educationally and of the difficulty in discriminating between these and the slow-learner category, they are often now to be found in normal schools.

vii) Children of migratory parents

In some countries (for example, United States, Italy, parts of France) migratory sub-cultures of workers exist: agricultural casual labour moving from one harvest to the next; gypsies; canal-barge operators. Their children come and go and are difficult to integrate into a school.

viii) Physically-handicapped pupils

In the normal use of the term such pupils are given their own provision either within special schools, 'wings' of normal schools, or, more recently, integrated in the normal school itself. It is, however, those with minor and often undetected handicaps, particularly of hearing, sight, and physical co-ordination who sometimes end quite unnecessarily in the category of 'failure'.

2. The Problems Associated with Those Who Fail

As the group is multiple in composition, so also are the reasons for failure; each sub-group poses its own problems. For lack of space this report will not discuss the difficulties of the smaller sub-groups - the emotionally disturbed, the linguistically handicapped, the migratory pupils, the mentally retarded and the physically handicapped. Sufficient

to say that if these are to be retained within the normal school, curriculum and context must be modified to meet their special needs. Here we must concentrate on the three major sub-groups: those from the 'culture of poverty', the early adolescent drop-outs, and the slow learners.

i) With those from the 'culture of poverty'

The reason for the failure of this group is fundamentally social; but school is a part of society. Though the schools cannot hope single-handed to change a cultural pattern, they can certainly play a role in so doing. The main problem is that these pupils and their parents are hostile to and suspicious of teachers and schools which are seen as representative of the enemy - 'they'. Unless such hostility can be overcome, no acceptable curriculum or context can be devised. This implies some change in the social climate within the school, an acceptance of a wide range of 'conventions of behaviour', the involvement of parents with the school, and in different social relationships between teachers and pupils, and teachers and parents. The existing 'academically' dominated curriculum taught in a framework of middle-class conventions of behaviour and language is inappropriate. Perhaps this is best illustrated by an example. When a pupil whose father is regularly in prison for theft steals from a teacher's bag at school, he is not behaving immorally by the standard of his culture - he is merely taking a risk. But the school does not simply label the action as anti-social, impose a punishment, and try to change the attitude of the pupil to such risk-taking; it adopts a moral attitude, perhaps even labelling the offender as a 'dirty thief'. But in the eyes of the pupil this moral judgment is not only on him but on his father. Even with less justification, moral blame is attached to breaches of conventions such as using 'bad language'. When some pupils say "It's f..... stupid, miss", they are not 'swearing' but using the intensifying word that is common to their culture.

To accommodate such cultural differences is not easy; but somehow the school has to accept fully, without making moral judgements, those pupils who break laws because their culture sees no reason why they should not; has to avoid apportioning moral blame except where the moral imperative is shared with the pupils; and must concentrate on emphasizing the anti-social effect of the acts for society as a whole. Less difficult in some ways is the acceptance of differing conventions of behaviour and language, though this proves a real problem in those schools - the majority - which are concerned with a wide range of children from different socio-economic groups. Parents and children, particularly those from socio-economic groups two and three, find it hard to accept that their particular conventions are not absolute moral imperatives but simply cultural habits. The same difficulty arises in convincing teachers who either come from these social classes or have

moved 'up' into them. The problem of accepting a wide range of conventions within the same school suggests that the normal principle of having a catchment area that covers as wide a social spectrum as possible - and even 'bussing' pupils to preserve the social mix - may be misguided. The trend towards small schools firmly based in their community offers a more viable solution: the community of the sub-culture will determine the nature of the school; parents can be persuaded to accept the school as their own; and perhaps most important, efforts to widen and develop the community can be more easily co-ordinated with other social agencies. As long as schools remain basically unchanged, another advantage is the avoidance of 'labelling' these pupils as comparative failures. Where in normal schools special courses are developed, with a strong vocational bias catering particularly for disadvantaged pupils, their success is limited partly because of the suspicions and hostility of the pupils but also because of the attitude of all concerned that to be in such a course is to be a failure.

ii) With those who drop out in early adolescence

This phenomenon, resulting partly from the combination of normal adolescent erratic performance in school and from the incapacity of the parents of lower socio-economic groups to support and to understand the school situation, poses a radically different problem that was discussed in Section A. The pupils may have attained reasonably well up to the onset of adolescence; there may have been some indifference to school but little hostility. However, with adolescence and its problems, their inevitable checks in progress, lack of parental influence to overcome these, and anti-school pressures from the slightly older members of their peer group, combine to bring about a state of unmotivated apathy. Because of this, these pupils choose - or are selected for - the least prestigious courses that will release them as soon as possible from bondage; their 'failure' is thus labelled and no further progress is possible. The self-esteeem, so essential to adolescents, is maintained by the pupil rejecting the school and all its stands for and seeking prestige from their peers. The long-term solutions for the problem lie in radically changing the curriculum and in postponing choices, as discussed in Section C.

iii) With the slow learners

These arrive from primary schools often disheartened by their comparative failure and handicapped in all academic subjects by their poor standards of literacy and numeracy. They need particular aid, above all with essential communication skills. This in the past was largely met by providing a 'remedial class' at least for the first years; usually smaller than normal, this often had appropriately trained teachers and extra resources. Apart from these special advantages accruing to the class, invidious daily comparison in class with more gifted pupils

was avoided. The problem is that sooner or later they have to learn to live with their own slowness. Also to be in such classes firmly labelled them 'stupid' or 'dummies'; within the total school community their 'inferiority' was stressed.

More recently, particularly in schools operating on egalitarian lines with mixed-ability groups, slow learners have been made part of the normal group. From this they are withdrawn for special tutoring in the basic skills, usually by trained personnel. If the general curriculum is appropriate with emphasis on creative, expressive and physical activities and a high proportion of small-group or individual work, this works well. Otherwise the withdrawal 'marks' them; also, inevitable comparisons are made with others in the academic work that occupies the bulk of time and the centre of attention. Some of these pupils have unexpected talents; some can talk intelligently and exhaustively on fishing; others on cars: one case exists of an adolescent boy who could scarcely read learning and performing excellently the part of Puck in A Midsummer Night's Dream.

iv) Miscellaneous aspects of failure

To divorce the problem of 'failure' from 'underachievement" is an error - pupils do not fall neatly into categories: 'failure' - 'success'; motivated - unmotivated'; 'satisfied' - 'dissatisfied', but lie on a continuum along a line between the extremes. The problem of the 'failures' we have been considering forms part of the larger problem of the full and successful development of the capacities and personality of all pupils. How widespread general under-achievement is, is uncertain; it is dependent on the criteria selected to measure attainment. Nor is there any certainty that failure and under-achievement is exclusively a problem of parental background. Research on pupil attitudes has shown in some countries that a high percentage see little point in the work they do at school; and those who do, see it only as a means to an end - not a source of satisfaction in itself. As the relation between learning and motivation is certain, it is highly probable that the majority of pupils do less well than they would if given an educational fare that stimulated them.

Among children of the lower socio-economic group a number of economic factors contribute to the selection of the course that permits leaving school for work as soon as possible, with the accompanying feeling that school no longer matters. For many families the loss of income from their children's earnings is still significant as is the inevitable incidental costs of clothing and transport and, in some countries, of books and equipment as well. The tendency to choose such courses is intensified where no arrangements are made to subsidize students during the consequent upper secondary stage; this even happens in countries where higher education students are so helped - an illogical situation. But the working class adolescents

themselves, belonging to a peer group that inevitably includes those already working, have a desire to become independent and to learn for themselves. Their families have neither the surplus money nor the inclination to subsidize them with gratuitous 'pocket-money'.

A generous system of short-term recurrent education that encouraged pupils to leave school after the end of the lower secondary period but guaranteed them free and subsidized 'upper secondary' education (academic or vocational) at any time up to the age of say twenty-one could reduce the tendency to choose the short terminal courses, whether from economic pressures from the family or from their own desires.

3. Conclusions

i) Those constituting 'failures' become so for differing reasons: the three more important sub-groups are those from the 'culture of poverty', those from lower socio-economic classes who 'drop-out' in early adolescence, and the congenitally slow learners.

ii) The problems associated with the three groups are different:

a) With those from the 'culture of poverty', sub-cultural hostility to schools and the conventions and morals expressed in them is the major source of difficulty. Solutions tend towards providing a social climate in the school that can accommodate the sub-culture. Because this causes difficulties with other social groups the best solution may lie in the small, community school.

b) With those who drop out in early adolescence, it is the lack of influence of parents and the hostile influence of the peer group, combined with certain economic pressures, that causes drop-out. Solutions lie along the line of changing curriculum and context, postponing choice, and perhaps making short-term recurrent education opportunities available.

c) With slow learners, the difficulty is not technically how to educate them but to avoid the sense of failure coming from comparisons with 'normal' pupils. Solutions lie in the direction of special tuition by withdrawal but this will only be effective within a curriculum that emphasizes creative, expressive, and physical activities and small group and individual methods, allowing them the possibility of relative success.

E. THE PERSONAL CARE OF THE PUPIL - GUIDANCE AND COUNSELLING

If the full development of the personality is a vital goal for education, the personality of individuals as pupils must be known as thoroughly as possible both in the context of the school and of the family. Pupils need help in their personal difficulties and their periods of erratic attainment that arise during adolescence; they need guidance in their choice of 'differentiated offerings' within the curriculum. On leaving, they need to choose among the bewildering array of courses opening up at the upper secondary stage, among the varied range of possible employment; above all many have to make the key choice - whether or not to continue their education or to go out to work. Even those problems that are more strictly in the province of the family have repercussions on pupils at school; not only does a knowledge of them ensure appropriate treatment in school but a sympathetic teacher, as a third-party adult, can sometimes negotiate successfully in the inevitable conflict between parents and their adolescent children. For such problems co-operation with other social services - built into some guidance systems - becomes of crucial importance.

Pupils arrive from the sheltered calm of a primary school, often small, and organised so that a class remains most of the week with one teacher who knows them well. In the secondary school, they find themselves one of perhaps two thousand pupils; they are taught by as many as eight different teachers in a week; teachers who, because of the size of the school and the complexity of the timetable, may rarely meet each other. Many schools have a totally inadequate system of personal care inherited from the elitist academic schools which were normally small and had motivated pupils mostly from stable and caring backgrounds. Often there is an inadequate mechanism for ensuring that pupils and parents make significant choices with adequate information about long-term consequences. Similarly, though guidance agencies outside the school have developed greatly in the last quarter century, their influence within the school is inevitably limited - and their efforts sometimes well-meaning but misguided. Recently more specialized personnel have been appointed to schools - or at least some teachers have been partially trained for guidance work. In some schools 'career education' is becoming more than the pious hope that 'career guidance' has often been in the past. The two aspects - 'personal care', and 'guidance and counselling' - will be considered in more detail in the following sections.

1. The 'Personal Care' of the Individual Pupil

What needs to be known is the whole pupil - not the 'pupil in maths', 'the pupil in physical activity', 'the pupil at home', as separate entities. All teachers recall staff-room conversations: "I find John Smith nothing

but a lay-about". "But he is excellent in my classes!" Or again those painful interviews with parents when it becomes clear that the "devil" at school is the "angel" at home - or vice versa. To know pupils well requires a responsible teacher to have reasonable contact with them an organisation which brings together the knowledge that other teachers have of them and knowledge of the pupil at home and a system of regular contacts with the parents. In many lower secondary schools size makes the problem more pressing - and harder to solve. As each 'responsible teacher' can reasonably 'tutor' at the most only thirty pupils, all teachers in a school regardless of age, experience and interest in personal care work, have to act in this capacity. To help them group under senior responsible teachers who are really interested, and if possible trained for, this work and who are given status or reward for doing it, becomes essential.

Two promising types of large scale organisation have been tried. In the first, the school is divided vertically into 'houses' under a senior teacher - each house being normally between one hundred and twenty and two hundred pupils. These are then sub-divided into tutor groups of approximately thirty pupils, sometimes of one year group only, sometimes spanning several. These groups meet with their tutors perhaps daily for a short time - sometimes to register their attendance and to deal with urgent problems. Once a week they meet for a 'tutor' period; this may be used for varying purposes including general discussions of common problems - sometimes also for 'career education'. All information is channelled through the 'tutor' to the 'house teacher' who supervises the tutors' work and deals personally with the more difficult problems. Each house may have its own parent-teacher association and will organise both 'tutor group' and house meetings with parents. Sometimes a regular short report, perhaps three times a term, is made by subject teachers to the tutors which indicates attainment and effort, perhaps on a three point scale, leaving room for a personal comment if desired. Such a system has the advantage of alerting the 'tutors' to the sudden erratic performance so common in adolescence and allowing them to take immediate action. As a system its weakness is that there is no match with the learning groups; the tutors will probably not teach many of their pupils. Its strength lies in this very divorce from the academic system; tutors look more clearly at the 'whole' rather than the 'academic' pupil. Also within the whole organisation of the school, it provides a counter-balancing power against the general dominance of the subject-centred academic senior teachers.

The other widely adopted system is based on the academic organisation. A year group - or in very large schools - half such a group - forms a unit under a senior 'year' teacher. The classes each with its principal class teacher form the sub-units within it. Otherwise it functions much as the house system. Its advantage - and its disadvantage - is its close relationship with the academic system; however, it must be remembered that often class teachers may only take their

classes one or two periods a week and, if they teach a 'setted' subject, may not teach all the pupils in their class. Where the classes are not of mixed ability, this system does not bring together different groups nor is a mixture of different ages possible.

Between the two systems, there is little to choose; both are an improvement on no system at all, but probably the optimum solution lies elsewhere. Before considering this, two points in relation to the above organisations must be made. Firstly, to be effective the 'personal care' system must have high status; it should have parity with the 'academic' side of the school. Secondly, when it comes to coping with a specific problem with a pupil, it is not necessarily the tutor or house teachers who should do this. Most pupils make a 'special relationship' with some member of the staff; this may be with the woodwork teacher or the games teacher (because of the more informal relationship in the creativity, expressive and physical subjects it often is). The 'personal care' system needs to ensure that the tutor knows of this relationship and can thus use the appropriate teacher when necessary.

In some cases counsellors with special training have been appointed to schools who can be used in conjunction with the above systems to handle difficult cases. This has the advantage of introducing a neutral figure not looked on as a teacher, who may have more time to visit parents. However, sometimes such a counsellor is expected to be the total 'personal care' system of a school, which is impossible; in others they are expected to combine such personal counselling with guidance work, difficult in the limited time available to them.

Moves in some countries have been made to revert more to the primary school organisation of one class, one teacher - at least for the early years. This has taken the form of one teacher taking at least a substantial block of periods either by combining and integrating subjects or by training the teachers to teach at least two subjects. Though this helps in both increasing a 'sense of belonging' and the personal knowledge of pupils, the disadvantage is that it implies that all pupils in a class are compatible with one teacher, demonstrably untrue, Given the variation in the competence of teachers the allocation of teachers results in all the pupils in one class being penalised for a year, all those in another being 'rewarded'.

In several countries, the class teacher system has been reinforced by the introduction of formal arrangements for all those concerned with a class to meet together, and at times to meet parents; this is often intensified during periods when choice has to be made. Undoubtedly this is an improvement on having an unsupported teacher in charge of each class, but if schools are large, the absence of designated senior staff to supervise and support is serious. Because of the general academic bias of most staff, a tendency develops to neglect the other needs and aspects of pupils.

Perhaps the most interesting - and in the long run most fertile trend - has been towards establishing the mini-school within the total school organisation. This takes various forms but in principle it involves the splitting of the school into sub-units of perhaps ninety to one hundred and eighty pupils, each taught for approximately half the timetable by a small stable 'team' of teachers. Each mini-school occupies a 'geographical' area in the school which they share, 'box and cox', with another mini-school. The responsibility of the teachers and the mini-school 'leader' are much the same as in the house or year group system but the much greater personal contact with not one but a small group of teachers working in close contact with each other makes personal care an integral part of the whole learning system.

Whatever the organisation used, continuity is essential; as far as possible the pupils should be under the care at least of the same senior teacher throughout their earlier adolescent period.

In all 'personal care' systems a key problem is the contact with parents. This takes two forms: a general meeting with all the responsible teachers, and the individual contact with the specific 'tutor' or 'senior teacher' concerned. The difficulty is that two differing groups of parents tend not to come to such meetings. First many parents of lower socio-economic classes, though interested in their children, are uncomfortable in the whole ambience of school and thus stay away. Secondly, the parents from the 'sub-culture of poverty' are downright hostile and reject all advances from the school. The latter prove particularly difficult (even at times dangerous!) when teachers or counsellors visit the homes of those who will not come to them. Again this is a problem that involves the co-operation of all relevant social services.

2. Specialized Guidance and Counselling of Pupils

Not only have the individual pupils to be known and supported through a personal care system, they have to be advised, guided - or perhaps selected - so that they join appropriate 'courses' within the school, in the upper secondary make a wise choice as to staying on or leaving school or finding suitable employment. A recent trend is to appoint specialised guidance personnel to school staff whose main duty is to ensure that such choices are based on full knowledge of their consequences. To carry this out they have the dual role of liaising with the personal care system in the school and with further full-time education institutes and with care, guidance and employment agencies outside. It is important to realise that their success will depend on the quality of the personal care system in a school and the degree to which they can become enmeshed in it. They may be trained to use attainment and aptitude tests to help in this. They may also have a trouble-shooting role in relation to problem pupils and parents. Where 'career education' forms a definite part of the curriculum - discussed in the

next section - they may organise it. Such staff have been recruited from many sources, probably the most effective coming from outside the teaching profession - from welfare services or from industry. The nature, length, and effectiveness of their training varies considerably.

Their success within the school has been partial. Perhaps there has been too much concentration on the 'terminal' pupils, and on these after significant choices have been made within the curriculum; they are concerned too much with guiding those leaving towards employment. Probably more important is that they should take part in the process of all significant choices within the school, making certain that all concerned - including teachers - are really aware of what significance the choice has for further education and for careers. But equally important is ensuring that the significance of the multitudinous choices of courses at the upper secondary stage are thoroughly understood.

Sometimes their position within the school is not sufficiently secure; professional teachers are suspicious of them and their status is not high enough for them to exercise the influence that they should have. In many countries a number of the teaching staff are appointed to carry out part time 'careers guidance'; though this may be better than nothing, it only proves really effective in isolated cases, perhaps because such teachers are given insufficient time and resources as well as inadequate training. However, if adequate time could be made available and if such staff were given sufficient status, the system has the advantage that they are better accepted by the teachers as a whole. It is particularly necessary to ensure that they have a good background knowledge of the world of work and, preferably, some practical experience in it.

A general difficulty for all guidance personnel in schools is the teachers' ignorance of, and indifference to, the world of work. Most have passed directly from school to university or college and from there back to school. It often appears that to them the real world is the 'academic' world; to be outside it is either to be a failure or to be 'second best'. This results, consciously or subconsciously in persuading academically able pupils to choose both within the school and after it, the 'noble' academic rather than the technically biased course, whether or not such a course really meets the pupils' needs. It also makes difficult a general climate of understanding of the nature and importance of the world of work, so important for the pupils' future.

In some places practising teachers are being brought more into contact with industry and commerce, by visits and even short periods of work experience. Certainly it is important not only for the guidance of pupils to appropriate choices but also for understanding the background of pupils' families - and of the work that the majority of them will undertake. Suggestions have been made that apart from in-service courses to familiarize teachers with the 'real' world, initial teacher training should include a period of work in industry linked perhaps to a social studies course which embraces the same curriculum material as in career education in schools, described briefly in the next section.

3. The Working World or 'Career Education' in the Curriculum

For guidance personnel to succeed in their task, pupils need to have at least a general understanding and appreciation of the 'world of work'. This is necessary not only for those leaving education at the end of the lower secondary stage but also for those making choices between courses in the next stages of education. But in a broader sense the understanding of the importance of and the processes of production, distribution and administration is a vital part of the understanding of society as a whole. The aim of career education, whether as a separate subject or as a part of 'social studies', is to give pupils firstly an understanding of the place and importance of industry, commerce, and administration within society. Within this it might extend to what general levels of 'jobs' exist - for example senior, middle, junior management, supervision, skilled and semi-skilled operations, maintenance, production-line worker. As far as possible pupils should have a chance to appreciate what it is like to work in each and what capacities and levels of education are necessary. Keeping in mind the age of the pupil - and this, though it should be started earlier perhaps even at the end of the primary school should be intensified during the last two years of the lower secondary school. In it, the personal practical element - "what really it is like to be...", "how much one earns as..." - should counterbalance a more theoretical understanding.

Countries attempting this have made sure that the practical direct element is part of the course, though not always well integrated with the more 'theoretical' work in class. This has taken the form of visits to working situations and lectures or discussions in the school by personnel from industry. The latter has proved most successful when a group coming from industry has included young workers as well as representatives of management and trades unions. Increasingly arrangements are being made for certain pupils to spend time actually working in industry, sometimes for one or two days a week, sometimes for block periods. This has succeeded in arousing real interest in the working world both generally and as a guide to a possible career - even when its result has been negative in that it has convinced pupils that the work was not for them. Such experience with its contact with the real adult world is undoubtedly of considerable value to all pupils; unfortunately it is often limited only to those within a year of leaving school.

With work experience certain problems arise. Sometimes school or factory legislation needs to be amended to permit it; insurance can prove a difficulty. Sometimes unions are hostile. Perhaps the greatest problem of all is the inflexibility of the school timetable and the lock-step teaching methods which make it difficult for pupils to miss periods during term time.

A further way of introducing a practical element into career education is to set up a working situation in the school. Though common in the communist countries in eastern Europe, this has only been tried

experimentally on a small scale elsewhere. It has the advantage that the experience can be planned to cover the whole undustrial process - commercial, production, management, and various working situations.

General 'career education' should lead on to the giving of specific information about employment and further education opportunities available. Close liaison is necessary between the guidance personnel within the school, the personnel departments of industry, commerce, and administration, institutes of further full-time education and the guidance agencies outside the school. The aim is to give the pupils not only information as to the future possibilities and present conditions but a real 'feel' for what it would be like to work in various careers. Visits, talks, discussions, printed materials, audio-visual presentations all play a part. Well organised 'exhibitions' either in a school locally in which pupils and parents can on one day talk to many different potential employers are very valuable. Problems occur particularly at the level of communication. Much of the language used both in printed material and in verbal or audio-visual presentation designed by outside agencies and personnel departments is often difficult for all pupils to understand. Also too little is done to put the pupils in touch with those who already work at the same level in an employment as they will. Above all - and this applies also to the general 'career education' - insufficient effort is made to ensure that parents, who at the lower secondary stage are the predominant influence in the pupils' choice of course or work, know and understand the different possibilities. As with so many aspects of education, this weighs heaviest against parents from the lower socio-economic classes.

4. Conclusions

i) To support pupils during adolescent difficulties, to ease the transfer from primary schools, and to ensure that choices are made appropriately during the period at school and at its end, a well-organised 'personal-care' system is necessary. This is particularly true in the larger schools. Various systems, described in the text, are possible; all have their advantages and disadvantages. Perhaps the most interesting is the concept of the 'mini-school'.

ii) In all systems one of the most important and most difficult aspects is contact with parents, most valuable in the form of a personal interview with the 'tutor' or senior teacher concerned. The main problem is the reluctance of parents from lower socio-economic groups - and particularly from the 'culture of poverty' - to come to the school in which other social services should be involved.

iii) The practice of appointing specialized personnel to help with 'choices' and perhaps also to 'trouble-shoot' difficult personal problems is now growing. The recruitment and training of

suitable personnel poses problems. For them to play a full part in the school their status in relation to the academic staff needs improving. It is necessary that they concentrate as much on the choice of courses within the school and in the upper secondary stage to follow, as on employment direct from school. Their success depends partly on the efficiency of the 'personal care' system and their involvement with it.

iv) It is important to include 'career education' aiming at giving a wide understanding of the place of industry, commerce and administration in society, a knowledge of the role of different levels of work in these various levels, and a 'feel' for what it would be like to work at these different levels. This can be a separate subject but is better as part of a general social studies course. Though leading to it, this should not be confused with giving pupils direct knowledge of opportunities for 'placement' locally. It should include as much direct experience as possible.

F. THE ASSESSMENT OF PUPILS

1. The Reliability of Assessments

Knowledge of how well pupils have learnt and what they have or have not assimilated is central to the whole process of education. For the pupils and for the teachers it is the keystone in the planning of the next learning sequence: the former to know whether or not they have learnt and understood, the latter to assess the general effectiveness of their teaching. With the broadening of the objectives of education to embrace affective as well as cognitive development, what has to be assessed is greater in quantity and technically more difficult. Not only for the development of learning situations is it important; during and at the end of the lower secondary school significant choices must be made. Wise choices are dependent on as full a knowledge as possible of the attainment of the pupils and, harder still, of their potential. Finally both institutes of further full-time education and employers demand some form of assessment to help selection.

Unfortunately so important has assessment become that it is being over-emphasized by all concerned. The results from assessment are more important than the learning process itself. As the sole criterion for choice, it has the inevitable disadvantage of indicating what has been attained up to that point, not what might be achieved in a totally different situation in the future.

Existing systems of assessment are much criticised for their lack of reliability, their poor coverage of the objectives of learning, their damaging effect on individual pupils, and the backwash effect they have

on teaching-learning in the schools. Above all most contemporary assessment stresses competition and attempts to rank pupils in order of merit. Almost unbelievably in view of what is known about the inaccuracy of most systems, the results of assessment are often conveyed by an 'order' of pupils ranked by percentage marks.

Even when this is not the case, the assessment is conveyed to the pupil in terms of a comparative 'mark' or 'grade'. Thus they are classified as 'successes' or 'failures': this reinforces both success and failure. Yet in any given class the students who receive a low mark or grade may be performing well according to their ability. This becomes particularly important if the class is 'mixed ability'. In reality, assessment should be as far as possible in relation to each individual's past performance and estimated capacity. This does not preclude at the point of significant choice a general estimate of the capacity of the student to undertake a given course successfully.

The remainder of this chapter will be concerned with specific problems or assessment.

i) Unreliability resulting from the selection of, the ordering of, and the time allowance for 'questions'

An examination may set out to test the attainment resulting from one or two years' work; inevitably it cannot include questions covering the whole syllabus - those selected reflect the particular interests of the examiner. Inevitably teachers stress those parts of the syllabus that interest them, particularly as it is often impossible to cover the whole adequately in the time available. Even allowing for the fevered research by some teachers into past examination papers to discern the examiner's interests, grave mismatches occur. The difficulty of questions within one paper and between years vary to which marking is rarely adequately adjusted.

Also, despite warnings from teachers to 'read through the whole paper first' pupils still tend to work through an examination paper in the given order of the questions which again becomes significant in view of the differing areas of 'good attainment' that exist between pupils. Finally the time allowed for each question is so short that there is very little possibility of reflection and thought; this benefits the 'quick' rather than the 'sound' thinker - and emphasizes memorisation rather than logical skills of argument and organisation.

ii) Unreliability resulting from variations in marking by examiners

Since 1930 research findings have steadily accumulated to show, that examiners exhibit little consistency over time in the relative mark they give between pupils. Examiners given the same papers in typescript three months to a year after the first marking produce quite different marks. The general standard of marking of the examiner remains reasonably constant - a 'high' marker remains so - but the marks they give to each individual differ significantly, and sometimes dramatically, thus producing a different ranking order. This even

happens in subjects considered easy to examine accurately such as mathematics. The recent introduction of examinations designed to obviate this, using multiple-choice or short answer questions, has certainly improved reliability, but only at the expense of even further narrowing the width of objectives assessed.

This particular inaccuracy in marking is not to be confused with general personal difference in standards of marking by examiners - 'high or 'low' markers - which can be relatively easily ironed-out in large-scale external examinations. However in examinations set in school or in class room tests this variable is highly important. If this factor, plus inconsistency, is added to the bias that comes from a certain expectation of what each pupil will achieve, the accuracy of internal assessment, in the form of class tests and school examinations, must be very suspect.

iii) Unreliability resulting from pupils' psychological or physiological condition

Certain pupils are naturally bad examinees; the pressure of having to succeed at a given time and place, the fear of failure, the accumulated tensions before, and the heightened atmosphere during, the examination itself cause some to perform consistently below their true level. Others react particularly well to these conditions and surpass their normal performance. Having to act under nervous strain and against the clock may be an attribute of value in itself, but it is not the avowed purpose of the exam. Examinations bear little relationship to working conditions in any walk of life; if predictive at all it is for success in similar examinations at a higher level. Unreliability occurs also because of the differing motivation that pupils have towards succeeding in examinations and tests, often linked to socio-economic classes. It is thus a further factor in the 'inequality of outcomes'.

But in addition to this, pupils - and above all adolescent pupils - vary from day to day psychologically and physiologically. If the day of the examination coincides with a period of intense pre-occupation with a personal problem or if it coincides with a heavy cold or for a girl, with her menstrual period, the results from the examination will inevitably be lower than they should be.

iv) Unreliability caused by variations in efficacy and attitudes of teachers and schools

To what extent success in examinations reflects the pupils' or the teachers' ability is debatable; anyone who has managed a secondary school will know that with the same group of pupils one teacher will achieve a seventy-five per cent and another only a forty-five per cent pass rate. This may be a reflection of the differing ability of the teachers but it is often more of the different importance that each puts on the examination and the preparation for it. The general attitude of

the school towards examinations can compound this; in some they are the touchstone of success, in others an evil to be accepted but not accentuated. The unreliability rising from these two factors alone make the results of external examinations unsatisfactory as selection criteria for further education or for employment.

2. The 'Width' of Objectives Tested by Assessment

The recent tendency to emphasize the importance of 'higher' cognitive and affective objectives has met serious obstacles in the existing forms of assessment. The latter stress heavily memorisation of facts and the memorisation and operation of largely routine problem-solving techniques. Even where essay type questions are normal, as in the humanities, it is more the memorisation of the teachers' notes, with perhaps some re-arrangement and inter-connecting, that is tested than the pupils' original attempts to reason or to bring together their knowledge into a coherent answer. In particular the process of analysing, synthesizing, forming and testing hypothesis as applied to an unfamiliar problem is seldom assessed. Attempts are in hand to change examinations to overcome this difficulty. These take the form of separating the testing of memorized facts from the testing of problem-solving skills. For the latter either the facts are given in the examination paper; or the candidates are informed of the subject areas of the question well beforehand to allow them to memorize the facts; or, as for the latter, but they are permitted to bring notes and reference books into the examination. Some attempts have been made to slow the pace of the examination, allowing more time for reflection. In some cases, project work carried out in the previous year has been accepted and has counted for up to twenty-five percent of the marks - the emphasis in marking being on the methods used by the pupils and their organisation of the material rather than the contents of the project. However at the level of the lower secondary school little has been implemented on a large scale.

Conventional assessment systems have largely ignored the problem of affective outcomes. Certain paper tests have been tried experimentally but little confidence is placed on them. As affective outcomes can only normally be observed in inter-personal situations, it is unlikely that any pen and paper testing system will be successful.

3. The Back-Wash Effect on Teaching-Learning in Schools

The importance that assessment results have in the eyes of parents and of pupils, of further education institutes, and of employers, inevitably influences teachers. In addition, officially or unofficially, teachers are judged by their 'result'; this the clumsier attempts at 'accountability' now extant will certainly intensify. Thus teachers emphasize in their teaching what they think will be examined, and concentrate on

memorization and conformity at the expense of higher cognitive skills, excitement and 'original' lateral thinking. At the worst, the last year in school can be spent in narrow concentration on what the teachers consider will be in the question papers. Even when this is not necessary, either because there is no examination or it is so far off as not to be pressing, the teachers have become conditioned to emphasize the same type of learning. Where an internal grade or mark has replaced examinations the same tendencies persist. If the 'grade' is essential for deciding the next stage, whether in the sense of repeating the year, choosing a course internally, or gaining admission to a prestigious course in the upper secondary school, the pressure is to retain the simple testing of factual knowledge through memorisation as the main component because of its apparent objectivity.

It is the pupils themselves that the assessment system affects the most. Those motivated towards academic success can become obsessed by it and at times badly worried by comparative failure. Perhaps those with little ability and highly motivated parents suffer the worst. It is above all the competitive, norm-referenced, nature of assessment that is the most damaging because of the inevitable classification into 'successes' and 'failures'. For those who succeed this may be an excellent spur - but for those who fail it can result in despair and in dropping out. Those who would retain the present system argue that "we live in a hard competitive world and the sooner pupils learn this the better". How to be a success from cradle to grave - but what if you are a failure? As long as selection has to take place at some time, some form of assessment will be necessary for both pupils and those who will receive them. But at least it should take place when the pupils can hope to have a sufficiently developed personal identity to accept their strengths and limitations - which is certainly not before the age of sixteen. Nor need it attempt to do what is any how not really possible, that is to rank pupils in any way, nor to stress competitiveness.

4. Continuous Assessment

Sometimes considered a new concept, continuous assessment, in a narrow and limited form, has been normal school practice; class- and home-work are set and marked, tests are given at intervals. Results from these, together or not with school examinations, and more rarely nationally set tests, are combined to make an assessment of the pupils which is used to inform parents and for the process of choice or selection. Most of the techniques of continuous assessment differ little from those already discussed in previous sections; they suffer from the same defects and equally are competitive and norm-referenced. Sometimes still the results are combined in complicated numerical ways to produce a class ranking order - perhaps the strangest of all assessment aberrations!

However, many of the objectives now emphasized, particularly those in the affective domain, cannot be assessed by pen and paper methods as they result in actions by the pupils that must be observed. The methods used to achieve such objectives involve actions - in small group work, in tackling individual projects, in relating with adults outside the school. Similarly many of the higher cognitive skills, particularly original lateral thinking are hard to assess through tests and need observation over time. The only practical way to assess these is by the observation of teachers within the school.

Increasingly autonomy is being given to school, teachers, and pupils to develop new pieces of curriculum suited to the individual pupils themselves. Such work can only be assessed at a purely personal level between the teacher and the pupil. In so far as the objective of the assessment is to aid the pupil in learning and in choosing, and the teacher in designing learning situations, continuous assessment is the only possible system. However when assessment inevitably has to be used to aid others in advising or choosing various disadvantages appear.

It must be remembered that teachers and pupils are normal human beings: they may cordially dislike each other; though teachers may attempt to overcome or even to compensate for this, injustice certainly occurs. If potential achievement needs to be assessed it can be dangerous to rely solely on continuous assessment. Most of those concerned with schools will remember pupils whose performance in class was lamentable, who were a nuisance and generally the 'bête noire' of teachers, but who in examinations had enough real ability to do well. A combination of continuous assessment and an external examination, both better devised than at present, might well be an appropriate compromise. Either both could be used and the 'marks' averaged, or the best mark could be taken, or the pupils could choose whether they wished to take the external examination or not. Such a system also helps to solve the problem of comparison - or moderation as it is called - of the results of continuous assessment between teachers and between schools.

5. Moderation or the Maintenance of Comparative Standards

As long as a major purpose of assessment is to allow intelligent choice by pupils or appropriate selection by institutions or employers, the degree of comparability of results will be important. This is also necessary for assessing general efficiency of the educational system and for the 'accountability' of the school. Parents and pupils must be shown that justice has been done. As was discussed above, all assessment systems are certainly unfair to individual pupils and perhaps to all the pupils in a given class or in a given school. Nevertheless external examinations have in the eyes of the public the appearance of being objective, unbiased and just.

Because of this, wherever external examinations have been replaced either by school-controlled examinations or by continuous assessment considerable pressure is brought to 'moderate' these to attain comparability.

It is not possible in this report to discuss the different systems in detail but they include the following: tests devised centrally to adjust norms between schools and between teachers; co-operative adjustment of marks in a district by teachers themselves; adjustment by inspectors; the use of the results of an external examination taken only for some subjects; by centrally set aptitude and attainment tests. Each of these is affective to some degree. However the danger exists that the more efficient the moderation becomes the more it tends to affect what happens in the school; new moderator is old examiner writ large.

6. The Reporting of the Results of Assessment

Information about the results of assessment have normally been conveyed either by a percentage mark, a ranking order, or more commonly recently by a grade expressed either alphabetically or numerically. Mostly a single mark, or grade, or place in a ranking order, expresses the whole result of the assessment in each subject. It has been seen how unreliable such results may be; it is now worth asking what exactly the 'report' conveys. What does an 'average' result imply - a 'C' on a five point scale: that the candidate was intelligent but lazy? not particularly gifted but exceptionally hard working? that he had an excellent ability to memorize but little to reason - or vice versa? that he scored very highly in part of the syllabus and very low on the rest? In fact information that is essential both to pupil and to others is not available at all; all that is conveyed is that on a normal distribution curve the pupil is in the middle!

The inadequacy of this kind of reporting is now recognized and more complex systems are being tried. The substitution of the short phrase 'progressing satisfactorily', by a much fuller verbal report covering a wide range of the pupils' attainments and capacities has proved successful but laborious and time-consuming for teachers - particularly as they have not been trained for it. Reports with differentiated headings such as 'powers of concentration', 'ability to memorize', capacity for original thought', have also been used, giving a 'profile' of the pupil. The inclusion of headings covering affective development has high-lighted the difficulty concerning the objectivity of statements that depend on the observations and opinions of a small group of teachers. Simple comparability becomes difficult between pupils.

It has been suggested that other than for those headings that can reasonably be assessed by tests, all assessment should be negotiated between the teachers, pupils and parents. Where no agreement is reached a 'multiple' assessment should be given showing both the teachers' assessment and those of the others concerned.

7. Assessment and 'Accountability'

When considerable autonomy for schools exists or is being granted, the demand arises to make the school 'accountable' for its action. Such accountability existing assessment techniques will prove inadequate. For the basic skills of oracy, literacy, and numeracy, reasonable instruments can be devised; if a certain knowledge base of society and of personal relationships is considered part of the 'minimum kit' for all, this too can be relatively easily assessed. But the success of the school in all the activities aiming at affective and higher level cognitive objectives cannot.

A possible way is to combine the principle of full inspections by teams of inspectors at regular intervals with a system of self-evaluation within the school. This latter could be by a team given the tasks of regularly attempting to question the reasons for what was happening in the school - and how well it was succeeding. The full inspection could then begin and end with a confrontation between the 'visiting' and 'home' teams. The value of such a process would be that, apart from allowing 'accountability', it would encourage schools to examine their actions continually.

A development from this would be to vary the personnel of each team: perhaps the inspecting team could as well as inspectors include representatives of unions, of training colleges, of national parents' associations, of national employers' organisations and the home - apart from teachers', parents', pupils' and local community representatives.

'Accountability' in this form could become a highly positive element in re-thinking and renewing continuously the process of education.

8. Conclusions

i) The two main purposes of assessment should not be confused: as an essential part of the teaching-learning process, and as a means of selection for courses or careers. For the latter purpose, for reasons given in ii) below, it is highly unreliable; even if it could be improved, its predictive value for performance in a new situation would be low.

ii) The existing system of competitive, norm-referenced examinations has many defects: it is unreliable because of the choice of questions and inconsistency of marking; it covers only a very limited range of objectives; it rewards and penalises personality differences; it depends on the psychological and physiological state of the candidate of a certain day; and above all it tests more the efficiency of the teacher in getting pupils through examinations than real attainment and ability.

iii) Continuous assessment, as normally practised in schools, suffers from most of the disadvantages of external assessment; it also depends on the relationship between teacher and pupil.

However for the assessment of many objectives, for the development of school, and teacher and pupil autonomy, it is the only practicable form of assessment; thus means to make it effective must be sought.

iv) The results of assessment need to be conveyed in a form that gives the maximum information, not as at present the minimum. For those attainments and abilities not directly assessible by tests, a negotiated and possibly 'multiple' assessment between teachers, parents and pupils is desirable.

v) Where accountability is desired, existing testing methods will only suffice for basic skills and any knowledge content considered basic. The assessment of perhaps the more important higher cognitive outcomes (affective and higher cognitive) might well be achieved by a visiting inspection team and a resident 'evaluation' group within the school. The composition of these groups need not be restricted to inspectors on the one hand and teachers on the other.

G. THE ORGANISATION AND ADMINISTRATION OF SCHOOLS

In the past, secondary schools were small; their pupils were well motivated, came from the same socio-economic classes, and shared the same codes of behaviour; and the tasks and role of the school were clearly understood. Schools were either closely controlled by the central administration through its inspectors or in some countries by local government or by the head teacher who then governed the school in an equally authoritarian manner. In the latter case the freedom of the head teachers was in practice circumscribed by external examinations and by tradition. The same authoritarian system was handed on to the 'new' schools.

However, the schools of today are often large; the pupils are far from a homogeneous group either in degree of motivation, or in class origin; differing codes of behaviour exist among them; and the role of the school is no longer clear. Recently centralised administrations are moving cautiously to give schools more autonomy; in the decentralised systems examinations are changing to allow more freedom to schools; tradition is no longer the force that it was. Thus schools have a greater possibility of making decisions both in curriculum and context. However in certain countries where considerable freedom has existed either at the school or the local level, recent moves have been initiated towards more control.

A new emphasis on grass-roots 'participation' has developed in the last ten years; though defined in various ways it is "the participation in the making of decisions affecting day to day life by all those who

will be affected by that decision" that concerns us here. In general authoritarian management is to giving way slowly to more democratic forms. New trends can be detected both in the increasing part played by the local community in the control of schools, in the more democratic forms of 'government' within the school, and at the level of the class-room, the participation of groups of teachers, possibly with students, in designing learning situations.

Finally teachers' unions in many countries are claiming to be the sole arbiters of 'professional' decisions in the school and in some cases of reforms in education generally. A confusion exists between the right to decide aims and objectives, which surely belongs either to society as a whole or to the whole local community and the right to determine the way such goals are to be attained, which is legitimately a 'professional' matter - but not necessarily one for the 'unions' alone to decide.

1. The External Control of Schools

There is a move to create 'governing bodies' on which the local community, the parents, the teachers, the administrators, and in some cases the pupils are represented, the head teacher being usually an ex-officio member. The actual powers given to such bodies have so far tended to remain restricted - neither central administration nor schools being prepared really to give up their 'rights'. Normally the 'governing body' advises more than it governs; its executive power, particularly in relation to finance, is limited to peripheral matters. Nevertheless the close connection of its members with the community, with which the schools are increasingly developing close relationships, enables considerable and often effective pressure to be applied.

The formation and functioning of these new bodies are not without problems. It is hard to find a machinery that will select truly representative members of the parents, the community, and, where applicable, pupils. Where strong parents' associations exist, they are dominated by the middle-class. The difficulty of making the school equally the concern of all socio-economic classes is once again apparent. Often the lack of real power results in disillusionment and increasingly half-hearted participation, particularly when the schools do little to involve members in the work of the school. Meetings, perhaps three times a year, become a matter more of receiving information than acting on it.

Yet if schools are really to reflect the wishes of the local community as well as the needs of society as a whole, mechanisms of local influence and part control are essential. The problem is how to make the involvement real and effective, while not stifling the school under a parochial blanket; the substitution of local for central dictatorship is never really an advance - it is often a regression to a narrower way of life.

2. 'Accountability' and the Control of Schools

The question of the external control of schools brings up the problem of to whom should a school be accountable - to society as a whole, to the education service of that society, to the local community or to the local government education service, to the pupils and parents? In the debate on this - rather than in the practice - a tendency has existed to polarise the argument: either it should only be to the society as a whole or it should be only to the local community; either it should be to bodies representing all facets of society or the community, or it should only be to their education services.

But in reality surely the school should be 'accountable' both generally to society and specifically to the community; and this must mean both in general and to the education service. Above all, not only should this be to parents but also to pupils. If this is so, then it has considerable implications for the methods of assessing accountability: it may well make necessary the method discussed in Section F, 7. It also implies effective 'governing bodies' with some delegated power and wide representation.

3. The Internal Administration of Schools

Within the school the traditional right of the head teacher to make all decisions - within the degree of autonomy granted - concerning the school as a whole and of the individual teacher to make all those concerned with their own teaching is increasingly challenged.

i) General decisions in the school

Various moves to replace the authoritarian systems by more democratic processes have occurred. Most commonly a 'consultative system' has developed in which decisions are only taken after genuine consultation. This can be with formally appointed groups, such as the 'Head of Subject Departments Committee' or with the teaching staff as a whole; ad hoc groups are sometimes formed, for instance, to consider the introduction of a particular reform. In some cases limited powers of decision, usually subject to the head teacher's veto, are delegated to the groups. Non-teaching staff and, more rarely, pupils may be included. The latter more commonly have an elected 'pupils' council' which works within carefully prescribed limits as to the subjects that can be debated and with very limited powers of decision.

Occasionally actual power to make decisions has been given to the teacher body within the school, with or without head teacher's veto - what might be called collegiate government. Much more rarely complete control has been with an 'assembly' of teachers, non-teaching staff and pupils - or representatives from them; this sometimes has included parent representatives. A 'consultative' organisation, by involving all closely concerned with decisions yet reserving an external power to inject either new ideas or to restrain over-optimism, can be

favourable to introducing reform. A collegiate form of government, because of the conservatism of most teachers, may result in the perpetuation of the traditions that exist in the school. A true 'participating' government may, because of the presence of students, result in more self-criticism by teachers, considerable change in teacher-pupil relationships and internal organisation; however, it does not necessarily result in change in the curriculum.

What is sure is that both because of the size and complexity of schools and of changing methods of control, the role and tasks of the head teachers have changed greatly. They need to be released from the detailed tasks of administration, for which they are often not suited, by the provision of administrative and secretarial staff. This allows them to concentrate on their real role, the leadership, animation, and control of the educational side of the school. But to control, guide, and stimulate, they need skills very different from those required for authoritarian leadership. Awareness of the possibilities of various reforms, ability to analyse complex problems, skill in the management and animation of small groups, are more the abilities now necessary. The increasing involvement with the community implies the need for understanding of the potentiality of that relationship and a capacity to deal effectively with adults from all walks of life who may not share a common background of interest in education. These needs are gradually being recognized; in particular, in view of the importance of knowledge of and relationships with the 'working world' it is important that head teachers should become themselves both knowledgeable in general on this and also in close relationship with local industry and commerce and leading some countries to emphasize both the initial and continuing in-service training of head teachers.

ii) Decisions at the level of the teaching-learning process

Normally teachers were the sole arbiters of what happened in their classroom, the privacy of which was defended ferociously. Once the classroom door was closed, the teachers remained unobserved; only the results from assessment gave a clue to how successful they were. But new curricula with more emphasis on integrated or interdisciplinary problem based studies have forced co-operation in at least planning and often in execution. Similar approaches have also developed to share expertise and work in the teaching of single subjects; this has particularly occurred when the need has arisen to create - or amend - material for individual or small group learning. The 'open-planning' of certain new schools has brought teachers out into the open - and resulted in increased co-operation. The 'mini-school' development, discussed in the section on personal care systems, makes such co-operation unavoidable. In the above situations, pupils have sometimes been involved in the planning process.

4. Conclusions

i) Local 'control' of schools by governing bodies with a wide representation is now increasingly common. However they often lack real power and suffer from biased representation, a feeling of powerlessness, and insufficient involvement in the school. Nevertheless, given movements both towards local autonomy and to school-community relationships it is necessary that such bodies should become effective. But 'local' should not replace 'central' dictatorship.

ii) Within the school, authoritarian rule by the head teacher is being gradually replaced by more democratic forms of government. Perhaps the most fertile is one of widespread and genuine consultation, formal and informal, and embracing all concerned. However, collegiate government by the professional staff also occurs but tends to be conservative and militate against reform. Full democratic control by a participatory assembly is rare, but has certain merits.

iii) Demand for 'accountability', should be accountable to both society as a whole, to the local community, and to parents and pupils; this implies a 'governing body' with some delegated power and wide representation.

iv) The headteachers' role is changing profoundly and new skills are required; this involves both initial and in-service training. It also requires that they are relieved of most administrative work by the provision of suitably trained personnel.

v) The teacher's isolated authoritarian rule in the classroom is being gradually replaced by co-operative planning, and sometimes execution, involving other teachers and, less often, pupils.

H. RELATIONS WITH THE PRIMARY AND 'UPPER SECONDARY' SCHOOLS

Based more on historical expediency than a logical division according to stages of child development, most education systems are fragmented into discrete stages. This tendency has increased in the last quarter century, because when faced with expansion, it was considered economical to bring together as many pupils of the same stage and needing the same resources in one school. From this fragmentation has come the problem of the interfaces between the different levels - in the case of the lower secondary schools, on the one hand, with the primary schools and on the other, with all forms of upper secondary institutions.

1. Relations with the Primary Stage

Though some countries, for instance, Denmark and Sweden have created a basic school that covers the whole compulsory education period, and though others, such as in parts of the United Kingdom have adopted a 'middle-school' taking pupils from eight or nine until twelve or thirteen, the majority make the break between primary and lower secondary between the ages of ten and twelve. This splits a well-marked stage of development, late childhood, leaving one year in the secondary school where the majority of pupils are already adolescent. The academic fragmented curriculum is unsuitable for the early adolescents; it is even more so for pupils who are still 'children'. Recent awareness of this has on the one hand led to the establishment of 'middle schools' and on the other to attempts to match more closely curriculum and context in the first years of secondary education to those of the primary school.

However, there remains a marked lack of continuity between the two stages. Much of the personal knowledge of the children and their families that has accumulated in the primary school is lost in transfer; some form of record card is passed but these are often perfunctorily completed - often with no more than an 'academic' assessment expressed as a mark or grade. Inevitably, on moving, contact with teacher is broken, but often also with peers who though entering the same secondary school are placed in a different class. The confusion in a child's mind on being subjected to the manifold teacher contacts and the complex organisation of the new school must often be complete. When primary schools have adopted child-centred learning, the transfer to traditional class teaching methods adds to the shock. Unfortunately it is those least adapted to school who suffer most.

Both to increase co-ordination and to diminish shock various steps can be taken. Exchanges of visits by staffs, co-ordination between subject teachers from both stages, and in particular close contacts between the head teachers are now common. However in some cases the different training, status - and salary - between teachers at the two stages inhibits the contacts. Through co-ordination happens rarely.

To help transfer, pupils from the primary school may spend a day - or a half-day - at the senior school in the term before moving. Senior teachers from the 'personal care' system may visit the primary school; they may arrange meetings with both children and parents. Efforts are being made to ensure that a full 'profile' goes with the pupil. However, when some differentiation is carried out from the start of the secondary school, this may lead to the primary school 'streaming' in some form - and the process of labelling, 'success-failure', begins even earlier. Even where no differentiation takes place, care has to be taken to make sure that the secondary school does not accept the 'labels' given by the primary school as sure

indications of the behaviour and ability of the pupil. Apart from the fallibility of all such judgements, the onset of adolescence both causes new problems and opens fresh possibilities which can change dramatically the attainments and behaviour of the pupil.

An unavoidable problem with transfer at a given age is the differing rate at which children mature. Both the physiological and the psychosocial onset of adolescence can begin as early as the age of eleven and as late as fourteen - in extreme cases even earlier and later. However, most education systems are so tied to the steady progress by age cohorts that any postponement of transfer would be considered a disgrace, any advance an honour. In fact many, by continuing with a process of repetition of 'failed' years, keep pupils who have reached adolescence most unsuitably in the primary schools.

2. Relations with the 'Upper Secondary' Stage

Throughout most education systems each stage is strongly and usually harmfully influenced by the one higher. At no point is this more true than between the upper secondary institutions (whatever their type) and the lower secondary school. This even occurs when both stages occur in the same institutions. Two major problems occur: the first concerns the choice amongst differentiated offerings at the lower stage which later will ensure entry into certain courses in the upper school - and the giving of sound advice as to what would be the appropriate course there; the second is how to avoid the academic pressure from the upper unduly distorting the curriculum of the lower school.

i) The match between choices made in the lower school and their relation to courses in the upper school

This was discussed in a previous section; here it is intended only to emphasize the difficulty and bias that arises from teachers themselves being unaware of the full range of courses - particularly those with a technical bias - at the higher institutes. Little real contacts exist between the two levels; this is particularly true when the upper stage is fragmented into many different institutes. When contacts do exist they often occur for pupils after they have already made 'significant choices'. Teachers are fully aware of the academic courses that exist - they themselves went through them - and to them such courses should be the first choice for all able pupils. Because teachers tend to influence pupils from the higher more than the lower socio-economic level, the socially-unbalanced composition of academic courses in the upper secondary stage is thus encouraged. Even for the pupils this may not always be an advantage; many might well be more successful in technical courses. Often a contrast exists between highly efficient systems for guiding leavers to employment and almost non-existent methods for guidance to further full-time education.

A need exists to remedy this deficiency and to relate the two stages more closely; this involves interchange of visits of pupils and teachers. Particularly it is the education of teachers in the nature and value of other than academic courses that is essential; a task which could partially be undertaken by specialized guidance personnel where these exist, but which also should form a part of initial and in-service training.

ii) The problem of undue and harmful influence on the curriculum

Throughout this report the harm caused by the over-academic nature of the curriculum and in particular the early introduction of the serious study of 'key' subjects, mathematics and foreign languages, has been emphasized. One of the main sources of pressure for this comes from the academic sections of the upper secondary stage, which may similarly be so influenced by the universities. Though a sound basis of certain academic subjects is highly desirable by the end of the upper secondary stage, exactly how high the standards should be is less certain. Such a marked difference exists between countries in this respect that suspicious are aroused whether or not the more exaggerated standards demanded are necessary. Apart from this, in some cases much of the material taught in the upper secondary school is covered again in the first year of the university; in others no difficulty has been experienced in providing 'catching-up' crash courses for those who for some reason have not studied subjects to the requisite depth. This leads one to think that the standards required for university entry could reasonably be lowered.

Much the same situation exists at the beginning of the upper secondary stage when often much of the material learnt earlier is covered once again. As was discussed earlier, a real possibility exists that intensive study of the 'key' subjects could be left until the last year of the lower stage and the first of the upper without any lowering of standards. As it stands, any attempts to develop a curriculum that would be tailored to meet the real needs of early adolescence will be thwarted unless the problem of the demands of the upper academic courses is solved.

3. Conclusions

i) A real need exists both to co-ordinate the curriculum and to ease the transfer between primary and secondary schools. Contacts on a much larger scale than usual between teachers are necessary and fuller information about the individual pupils needs to be made available.

ii) Much more knowledge of the nature and possibilities of the full range of courses at the upper secondary level is needed by teachers and pupils both to enable choices to be made between 'differentiated offerings' in the school and between courses at the higher level.

iii) The academic standards demanded by the upper secondary academic course make difficult the development of a curriculum at the lower stage based on the real needs of early adolescents. This is particularly true in 'serious' mathematics and foreign languages, and it is especially necessary to consider ways of avoiding an early over-emphasis being placed upon them. It is not clear that postponement would necessarily lead to lower standards.

I. THE INTERRELATION OF SCHOOL AND COMMUNITY

At various points in this report the value of close relationships between the school and community has been discussed. The purpose of this section is to pull these various threads together. Three kinds of relationship occur. The first, already sufficiently considered, is the participation of the community in the control of the school; the second is that which results in the school making use of the human and physical resources of the community; and the third, the converse of the latter, is the use of the school's human and physical resources by the community. The relationship may be formal or informal. Schools may have extra accommodation and resources added to help serve the community, or increasing new complexes embracing both school and community facilities, resources and services on the same side are being built. The converse of this, the spreading of the school throughout the community, though tried experimentally, has not as yet been fully implemented anywhere.

1. The Use of the Community as a Resource for the School

The most important resource that the community can make available to the school is that of adult contacts, so essential for adolescent development towards maturity. Particularly such contacts can be with adults of all ages and from all classes, and other than the often artificial adult-adolescent relationships in schools. The ways of organising these are manifold; many have been mentioned earlier - voluntary service of all kinds, work experience, projects involving questioning adults or researching local developments - all can play a part.

However many other resources exist, extremely valuable for projects arising from subjects such as social or environmental studies, history, geography and biology; these include local museums, archives of all sorts, and local institutions of many kinds. Local theatre companies have collaborated in arousing interest in drama. Sporting facilities not provided in the school such as swimming pools, athletic stadiums, and squash or tennis courts are increasingly made available.

Adults from the community can be used in the school to help part-time - on a paid or voluntary basis. Parents - and others - may act

as non-professional staff. Adults with specialized knowledge not possessed by the staff can add to the width of offerings possible. Personnel officers and other workers from industry can help with career education. Occasionally - and most effectively - the considerable pool of post-graduate students, particularly those from specialist institutions such as colleges of fine applied arts, could be employed as part-time teachers, adding their particular expertise for perhaps a half-day a week.

Without doubt, when well organised, the school has derived much benefit from the relation with the community. Pupils have matured, become more responsible, and often developed new interest in school subjects when seeing their applicability in the real world. Particularly in times of the shrinking supply of finance to schools, the increased 'free' resources can be of great value. However, problems do occur. Initially the community can fail to understand the real purpose of the work outside the school and to consider it a 'new-fangled' waste of time; care is necessary to make sure that all know why any activity is carried out - much easier when a formal school-community organisation exists. At times difficulties are encountered because school regulations were designed to ensure that every pupil was firmly incarcerated in the school building during school hours. The rigidity and inflexibility of timetables often forces such activities to take place after school on a 'voluntary' basis, thus missing many pupils who might particularly benefit by them. At times over-enthusiasm combined with poor planning has brought about disillusionment; it is not the complete solution to all problems but it is certainly a fertile way of helping overcome some part of them.

2. Use of School Resources by the Community

Though this was originally conceived as the economic use of buildings and resources, it can result in a positive benefit to the school. If community use is restricted to the use of premises and facilities when the school is not in session the benefit is only to the community. In fact, because of restrictions on the freedom of the school to leave displays or work in progress about the premises and because of occasional damage, this can prove a handicap and a source of friction. But when joint use really occurs so that on the one hand adult classes are in the school by day and even that adult students join the school classes and that on the other hand pupils join adult activities in the evenings and weekends, a real advantage accrues to the school. Not only are wider opportunities for activities made available but the range of possible informal adult contacts is markedly increased. Perhaps the breaching of the somewhat artificial world of the school by the reality of life outside is the biggest advantage of all - for teachers as well as pupils. Certainly management problems arise in joint use, discussed elsewhere, but these are capable of resolution.

3. Provision of Purpose-Built School-Community Complexes

Many countries are beginning to bring together community facilities, services, and schools in large complexes; such a complex may include sporting facilities of all kinds, public library, perhaps a theatre, and the full range of medical and welfare services. Though in theory this may be desirable, the large scale necessary makes operation difficult - co-ordination and co-operation becomes a real problem. Because of the scale, the schools are also large and thus divorced from their real local community. A danger exists too that the school may lose its sense of identity which, though often exaggerated in the past, is nevertheless essential for its well-being.

It is possible that the provision of modest combinations of resources for school and community at a more local level would be more useful. It would be possible to combine such small centres with a large central complex which provided the more expensive large-scale facilities but did not include a school below the upper secondary stage.

4. Conclusions

i) The community is a valuable resource for the school by providing opportunities for essential adult contacts and experience, and by providing actual resources such as sporting facilities and museums, and as a source of part-time or occasional non-professional or highly specialized staff within the school.

ii) Real joint use of facilities in which adults are in the school during school hours and pupils in community activities out of school can not only benefit the community but, by increasing informal adult contact, the school as well.

iii) The present practice of building large complexes has disadvantages both in management and in separating the school from its local community. Consideration should be given to the concept of more modest but also more local provision backed by a central complex for the more expensive facilities and services.

III

THE IMPLICATIONS OF THE REPORT

The purpose of this report has been to analyse the problems besetting the lower secondary stage and to identify possible directions that actions aimed at solving them might take. After summarising this analysis, this section will discuss the implications this may have for action.

A. SUMMARY OF THE ANALYSIS

The present disenchantment with education derives in part from its inability to achieve what to some extent were false conceptions of its purpose, in part from its real failure to meet the needs of young people living in the troubled context of our present-day society. Out of this disenchantment have come both a reluctance to provide finance on the scale of the past years and a demand for value for money spent - accountability.

Recently the 'goal' of education has come to be seen as aiding the full development of individuals, intellectually, emotionally and physically, so that they can live a satisfactory personal life in, and contribute positively towards, the small social groups they will live with, and the economic, political, and social life of society as a whole. In some cases a particular stress within this general goal has been the development of individuals in relation to their working life - a facet neglected in many systems. Clearly this overall goal embraces that of playing an active part in engineering greater 'equality' and in promoting economic growth.

The activement of such goals has to be seen in the particular context of our present day society with its plurality of beliefs, its ambiguity as to moral codes, its small nuclear familiar living in urban or suburban complexes with poor community relationships, its stress on consumption, its domination by mass media, and its impersonal mass-production working world. All of these have brought about the isolation of the adolescent from the adult, the growth of a 'teen-age' sub-culture, and a lack of a framework of beliefs, morals and conventions to guide the socialisation of the young.

For the lower secondary stage of education covers in this highly important but highly troubled period of adolescence the development of the child into an adult. In particular it covers the perturbed earlier years when the negative aspects of adolescence are at their greatest. Education in the past has largely ignored the needs of children that arise from their particular stage of development: its main emphasis has been on the nature of the disciplines and skills taught. Yet if the goals outlined above are to be reached, it is the pupils themselves who must be at the centre of the process. This is not a plea for what in progressive education is called 'child-central' education; it is the statement of a self-obvious facet. In our present-day situation with the mass education of pupils from all social classes, no system will work without reasonable motivation on the part of these pupils - and this implies taking into real consideration their varied needs and their possible interests.

Thus the peculiar and particular nature of the earlier stages of adolescence must inform all discussions of the structure, curriculum and context of the lower secondary stage of education. It must take into account the variations in the age of onset, in its intensity and direction and consequent periods of academic under-achievement, and in the differing way in which pupils and parents from different socio-economic classes react to it. All of this should have consequences for the content and the method of the curriculum and the timing of significant differentiations in it; equally it will affect the whole context of the curriculum - the personal relations of pupil and teacher, the degree of autonomy of pupil, teacher and school, and the relation of the school to the community.

This latter point, the opening of the school to the real world of the community surrounding it, is vitally important particularly for two purposes. Firstly, it enables the adolescents to have contacts with a wide range of adults of differing ages; it thus can help to mitigate the present-day impoverishment of adolescent-adult relationships. Secondly, it offers a possibility of increasing the understanding of the reality of the working world by those who are shortly to enter it.

The analysis of the present situation in schools shows that the factors discussed above have been taken little into consideration in planning the existing lower secondary stage; schools are still reflections of the academic 'élitist' schools of the past that lack different objectives and a different pupil body. At present, the curriculum is generally based on the academic needs of the higher stages of education, is subject-centred, and taught by lockstep class-teacher methods; it takes account neither of adolescent erraticness nor of adolescent needs. The early years of school, which coincide with the disturbed earlier years of adolescence, are used as years of orientation, and embrace, either during or at their end, many significant choices. Opportunities for adult contacts are few; teachers maintain an authoritarian distance from their pupils and little effort has so far been made to open the school to the community.

The result of present schooling is that too many pupils fail or under-achieve - mostly from the lower socio-economic groups. However, even those who succeed are deprived of means of satisfying many of their basic adolescent needs; for example, no widespread attempt has been made to relate the school to the real life outside it, in particular to the world of work. Related to the problem of the inappropriateness of the curriculum and context in the school are several highly important but more peripheral problems: the assessment of pupils, their guidance towards wise choices, the relationships of the school and community, and the relationships to the primary schools before and to higher institutions and work after.

B. THE IMPLICATIONS OF THE ANALYSIS

The actions implied by this report have two dimensions; the one an overall dimension which requires a re-examination of the whole lower secondary system in the light of the analysis above; the other which implies the re-examination at a more specific level of individual parts of the whole system: the context and methods in the curriculum; the differentiations; the guidance element, etc. To some extent these may divide also on a time dimension into long-term and short-term actions. However, it may be necessary to ensure that the more short-term specific actions are seen in the context of an overall long-term 'plan' as in its broadest and least defined sense. The sections that follow should be read in conjunction with the relevant sections in the main body of the report - or at least with the conclusions which terminate each section.

1. The Overall Implication

The re-examination of the total lower secondary stage implies looking at three facets: the aims and objectives; the implications for curriculum and context needed to achieve such aims; and the means needed to implement any necessary changes - all in the context of the nature of the adolescent pupils from all social contexts and the problems and challenges of present day society.

At the same time certain structural problems call for thought relating to the size of schools, their use of time throughout week and year, their relations to the community and their governance.

i) The aims and objectives

Whatever the degree of possibility of translating exactly aims and objectives into actions that will achieve them, both the process of clarification and of attempting at least approximate acceptance by all concerned with education appears essential. Certainly without it

assessment is difficult if not impossible, and criteria for change difficult to conceive. What is important, given the width of the goals, is the participation not only at all those within education, but also those representing all facets of the society it serves.

ii) The implications for process and practice

These involve the content and methods of the curriculum, the nature and timing of significant differentiations, the process of guidance and choice, the nature and purposes of assessment. But also the attitudes, capacities, and training - and retraining - of teachers, distribution of financial resources, the nature of supervisory and support services, and the relationship of school and the community.

iii) The implications for means of implementation

The degree of change implied by this re-examination is such that its implementation must be long-term, perhaps over as long a period as twenty-five years. Yet for it to happen certain necessary conditions have to be fulfilled reasonably quickly - for example, changes in teacher education, the requirements of universities or other establishments, external examination systems; this action is needed now.

iv) A more general implication

The previous three sub-sections were considering the adolescent pupils in the secondary schools - for the main problem lies in the particular stage of development that pupils will experience in these years. But the problems of the adolescent will not be solved in the schools alone - in fact much of what should be achieved in schools may only be possible if the problems are tackled in their whole social context. There is a pressing need to look at the present situation of adolescents in our society from the point of view of their total life unit - in the family, in their leisure activities, and in their work. This is particularly true in relation to the disadvantaged and the steadily increasing number of delinquent adolescents.

2. Specific Implications

These are sketched briefly below; reference should be made to the relevant earlier sections.

i) Content and method of curriculum

The complete rethinking of this is essentially a long-term project but immediate actions are possible:

a) Toward a reduction of academic emphasis, particularly in key subjects such as mathematics and foreign languages.

b) Towards development of a curriculum that will motivate intrinsically more pupils.

c) Towards an introduction of more expressive, creative and physical activity and problem-based rather than subject-based work.

d) Towards emphasis and communication skills in the wide sense.

e) Towards the introduction of work aimed at understanding of and preparation for life in society, in particular that of the working world.

f) Towards development of more learning through individual and small group work and of lock-step teaching.

g) Towards giving both equality of opportunity and appropriate education to girls.

h) Towards development of curriculum activity including the local community.

ii) Significant differentiation in the curriculum

a) Towards the postponement as late as possible of such differentiation.

b) Towards the abandonment of the concept that the early years (11-14) of secondary education are appropriate for orientation.

c) Towards a better understanding of the social basis of decisions taken as to courses and careers in the school.

iii) The personal-care system

a) Towards setting up effective personal care system, controlled by experienced teachers, with high status.

b) Towards the integration of this system with an effective guidance system.

c) Towards the tying of the personal care system with the teaching/learning system particularly in the early years by reducing the number of teachers teaching an individual pupil.

iv) Pupil assessment

a) Towards the abolishment of external examinations.

b) Towards an assessment aimed at aiding learning not as a tool for selection.

c) Towards developing a system of internal assessment and reporting covering the development of the whole personality.

d) Towards a system of limited central assessment of the basic skills.

e) Towards effective but not repressive assessment for accountability.

v) Guidance and orientation

a) Towards the development of an effective system, with adequate time, personnel, resources and status to ensure wise choices during and at the end of this education period.

b) Towards developing in the schools a climate of knowledge and understanding of the world of work by pupils, parents and teachers.

c) Towards changing both pre-service and in-service training of teachers to bring about b).

d) Towards developing through a personal care system a method of collecting and recording the maximum information about individual pupils.

e) Towards developing close links both with industry and commerce and with end-on educational institutes, particularly those offering technical and commercial courses.

vi) School and community relations

a) Towards maximising the contacts between adolescents in school and adults in society.

b) Towards making full use of the human and physical resources of the community.

c) Towards bringing the community into the school to allow mixing of adults and adolescents in activities.

d) Towards the real participation of the community in the governance of the school.

vii) Internal organisation of the school

a) Towards more democratic systems of internal management at school level.

b) Towards more autonomy to small groups of teachers - and perhaps pupils - at the teaching-learning level.

c) Towards adequate training and re-training of headteachers and other responsible teachers.

viii) Avoidance of failure and under-achievement

a) Towards recognition - both as to status and resources - of the importance of the Lower Secondary School for those for whom it is the final educational chance.

b) Towards developing content, method, and context that will motivate the majority of pupils, particularly from the lower socio-economic classes.

c) Towards developing 'mixes' between school and working life.

d) Towards involving the parents of the disadvantaged more in the school.

e) Towards meeting the needs of psychologically and physiologically handicapped pupils, within the context of the normal school.

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